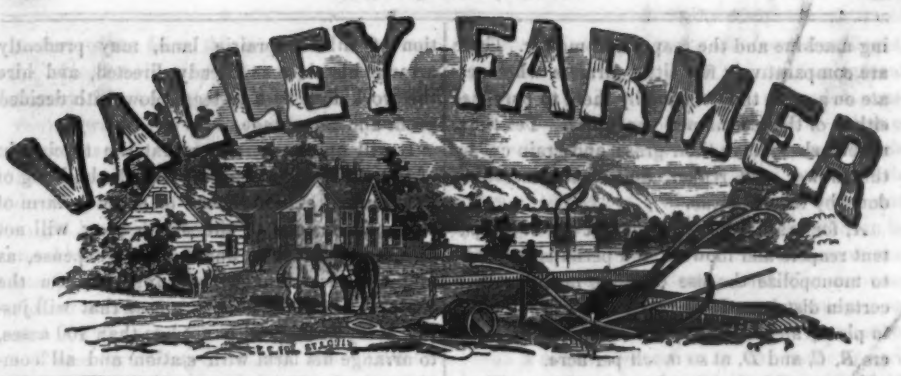

NORMAN J. COLMAN, Editor and Proprietor. BENJ. BRYAN, Publisher.

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THE VALLEY FARMER,

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STEAM CULTIVATION.

BY COL. C. W. SALADEE, OF PADUCAH, KY.

NO. V.

Ed. Valley Farmer: Having arranged the farm or plantation as directed in my last paper, and you get fairly started, it is presumed that on rainy days, or at such times as your hands are not otherwise engaged, you will set a part of them to hauling wood from your timber lands to the station, and have it piled up neatly adjoining the building, and by this means get a large quantity ahead, so as always to have a supply of dry wood on hand. While, at the same time you will set other of the hands to sawing up the wood in the station house, by the use of the engine and the circular saw before mentioned. In this way you can always have a ready supply of wood sawed and piled up in the station house, with which to fire your engine when at work in the field.

But if you are so situated as to be deprived of a combination of timber lands with your prairie, then, of course, you will furnish your station or stations with coal, at such times when nothing better can be done by your hands.

When quitting work in the evening, the machine is run into the station house, the shifting pinions acting upon the revolving drum, or driver, thrown out of gear, and the belt placed upon the belt wheel of the engine and the one connected to the force pump, and the steam is worked off in pumping the water into the tank necessary to start the engine the next day.

By the arrangement thus far described, the engine is not only provided with a suitable house for its shelter when not in use, but the machine is in a position from which it can be started at any time in twenty minutes' notice.

My remarks thus far on the subject of steam cultivation, have been confined to a consideration of the subject in its most extensive form. Therefore, the reader who may own a small prairie farm of but a quarter or half section of land, or that quantity of wild prairie which he contemplates reducing to cultivation, may have come to the conclusion ere this, that he is in no way to be benefitted by the new system of steam cultivation I have proposed. But be not so fast, my good friend, as I intend devoting the remainder of this paper to a consideration of your case in connection with the steam plow.

"We little half section prairie farmers," said a friend of mine to me not long since, "will have to continue digging and scratching as of old, for," he continued, "we are not able to arrange our little farm and purchase the machinery you direct; and if we were able, we would not do so, for the simple reason it won't pay." This is very true, and the same argument will apply with nearly the same force to the thresh

ing machine and the reaper and mower. There are comparatively few little farmers who operate on a scale that will justify them to purchase either of the last named machines. Yet they, nevertheless, have their grass and grain cut by the mower and reaper, and their threshing done by the machine.

A, for example, has purchased one of the patent reapers and mowers, and perhaps the right to monopolize the use of such machine in a certain district. It is now carried from place to place, and does the work required by farmers *B*, *C*, and *D*, at so much per acre.

Just so with the threshing machine. There are parties who make it their business to go from farm to farm, and thresh out its grain at so much per bushel.

Now it is true, that the farmer who does not operate upon a scale of such magnitude as to justify the purchase of this class of machinery, does suffer the disadvantage of making the use of such machinery cost him more than though he possessed it within himself. But, notwithstanding this disadvantage, he is, nevertheless, accommodated in such a manner, that the work hired done by this machinery is cheaper and better than it could be done in the usual old way; so that after all, this class of machinery is made to serve alike the man who farms upon a small scale, as the man who operates largely.

The same is to be said in reference to the introduction of the steam plow.

While it is admitted that the "little half section prairie farmer" would not be justified in purchasing a steam plow for his farm—no one, I trust, will contend (if the steam plow itself is a positive success) that he would not be justified in arranging his farm and adapting it to steam cultivation, and hire the machine to visit his place and do the work desired at so much per acre. This, I think, will fully appear, when, in a future paper, we come to consider the cost and the results of the work done.

I do not, however, wish to be understood as advocating the idea, that every farmer, however small his operations, or the limits of his farm may be, would be justified in preparing for steam cultivation, and employ the steam plow to work for him. There is a point below which steam cannot in any way be made profitable upon the farm. The man who has less than 100 acres of land that can be worked by the steam plow, must be content to conduct his limited operations by the limited means within his reach. But the man who embraces in his farm a half section, or even a quarter section of tillable prairie land, may prudently arrange his place as already directed, and hire the work done by the steam plow with decided profit and advantage.

It will appear hereafter that the fencing in of 160 acres—or 320 acres—and the building of the required station house to adapt a farm of these dimensions to the steam plow, will not be a matter of such unreasonable expense, as might at first thought be supposed. On the contrary, it can be done at a cost that will justify every farmer, with not less than 160 acres, to arrange his farm with station and all complete, ready for the operations of the steam plow.

There are two ways I will suggest, by which this class of farmers can employ their work done by the steam plow and its machinery.—One is, that a certain party purchase the machine with the right to do the work within a certain district. But before doing this, let such party obtain, among the farmers, the requisite subscription to the enterprise, by which the farmers agree to prepare themselves for the steam plow, and to patronize it to an extent specified in connection with the name of each subscriber, and at a stated price.

The other way this class of farmers may be accommodated, is for the requisite number of them to club together and form a kind of Joint Stock Company, arrange their farms for the purpose desired, and purchase the machinery to do their work.

Every farmer patronizing the steam plow, in either of the two ways mentioned, will proceed to arrange his farm in the manner substantially as already recommended: only, of course, not so extensive. The station house can be made to answer the purpose, by making it simply a cheap and rough but strong shed building of the requisite dimensions, and without granaries, &c.—but simply a station shed, from which the water and fuel is to be furnished to the engine, and intended for no other purpose; or it may be more extensive and finished in its character, just as the means and notions of the proprietor may dictate.

In this case, each farmer should place into his well at the station shed or house, a good hand-force pump, provided with a short hose, through which the water can be forced into the engine tank. The engine of the steam plow might be furnished with a portable force pump, which could be applied to any well from which it was to obtain its supply of water. But as the machine in this case is not a permanent

fixture of the farm, this would, in many cases, be objectionable, for the reason that every farmer who had such station well, would, of course, want to use its water for other purposes than that of supplying the steam plow, and hence each would have his peculiar way of drawing the water, and the arrangement which might be applied to the well for this purpose, would be interfered with when the steam plow pump was to be applied. Therefore, let each farmer adapt the use of the hand-force pump, and it will answer for every purpose.

These "traveling machines," as I will term them, should be provided with a very simple and compact circular saw attachment, which could be adjusted in five or ten minutes' time, for the purpose of sawing its own wood, where that is to be its fuel.

These machines should also be provided with a threshing machine of the most improved pattern, and expressly built to accompany the steam plow engine, and to be operated by it.—The threshing machine should be mounted upon a set of wheels, as is usual, and so arranged as to be drawn from place to place by the engine when wanted for the purpose of threshing.

This peculiar connection of the thresher to the steam plow engine, would embrace the very desirable advantage of dispensing with animal power altogether for this purpose—either for transportation or operation. It would in the strictest sense become a steam threshing machine.

When the steam plow engine is used for this purpose, the same danger of fire would attend it as when at work with the reaper in dry wheat fields. I have already referred to a safety arrangement which is attached to the engine when used for threshing, reaping, ginning cotton, &c. One part of this arrangement consists of a spark arrester applied to the smoke stack of the engine, through which not the smallest spark of fire can possibly escape. The other part of the contrivance consists in securely closing the ash pan, yet with a due regard for the passage of air into the furnace. When it is desired to discharge the ashes and cinders accumulated in the closed ash-pan, they are made thoroughly wet by the use of a small hose from the tank of the engine, and then drawn out upon the ground, and the pan is again closed up as before.

That the application of steam to agriculture may, in the manner and upon the principles I have endeavored to explain and describe, become general throughout the prairie regions of our country, I entertain not the remotest doubt, and that it will be made the willing servant of not only the extensive planter and farmer, but likewise of the more unpretending tillers of the soil, I also believe will shortly come to pass. Still, I am not of that class of projectors in steam cultivation, who, in their wild and thoughtless enthusiasm, allow themselves to be drifted so far out of the channel of reason and common sense, as to declare that "the common plow has the sentence of death written upon its beam"—that the agency of steam is to effect such a mighty revolution in the mode of agriculture as to drive the old plow from the field, and in due time to be classed amongst the rarest specimens of antiquity.

It is only a matter of surprise to me, that men of such apparent intelligence as are some of the English writers upon this subject, as well as some of our own, should make themselves appear so supremely ridiculous—not to say contemptible—as to publish such a prediction, or even to entertain such a thought.

The broken regions of our country must always be cultivated by the good old plow of our fathers, in spite of its manifest defects. So likewise all the farms in the prairie regions possessing less than 100 acres of tillable land. So that while I believe the application of steam to agriculture is destined to achieve almost incredible results for the general welfare of man and the advancement of civilization, I am at the same time generous enough to permit the honored old plow to retain forever its proud position among the most important implements of husbandry.

Ashland Farm, Ky.

Good Manures.—Among the very best manures is that which accumulates under buildings, or where it is sheltered from the rain. Thus, under barns, stables, hog-pens, the best manure is found. It is rich in saltpetre, an excellent ingredient in the manure heap. Such manure may be applied in almost any way. All it wants is water. That will set it to work at once. Be careful of these preserved manures.

A New Discovered Use of Manure.—It is found that manure decomposes the soil when applied. Such is the testimony of our foreign experimenters, who are always ahead of us in chemical discoveries. This is an important fact, if true: and there can hardly be any doubt of its truth. A chemical change takes place in manure. The chemicals must certainly affect the soil they come in contact with. Even flint is affected by them.

THE POTATO ROT.

Prof. Johnson has concluded his treatise on the potato disease. In his last instalment, in the *Country Gentleman*, he discourses of the cure.

The cure, he says, consists in removing the cause. In this respect the potato disease is like dyspepsia: in both cases it is hard to cure.

Although not much has been done, apparently, by this discussion of the subject, still much light has been thrown upon it, and an increased inquiry will be one of the results.

Prof. Johnson, through the German *savans*, has (shall we say?) demonstrated that the potato rot is a fungus growth. This point seems to be established. And this fungus is propagated. The spores drop upon the ground and thence reach the tuber. If the skin of the tuber is tough and not easily penetrated, it is with difficulty that the spores, or seed, work through the tough skin. Besides, it is probable, and so held, that the disease extends through the vine down to the tuber. How, then, shall we prevent the *Peronospora* or fungus, to penetrate the soil, or transfer itself from the vine to the tuber? There are many suggestions; some experiments have been made with success, but not complete success.

A pure fruit, and a new soil where potatoes were never grown, will, if Prof. Johnson and the German *savans* are correct, grow healthy potatoes. Now, we see not why this may not easily be done. *All* potatoes are not affected. We think this is clear. There is ground that has never been put to potatoes. This is equally clear. Let it be tried.

[Written for the Valley Farmer.]

THE FARMER'S STUDIO.

In surveying the vast stretch of land comprised within the limits of our once happy country the reflective mind cannot but be struck with the superiority of the agriculturist's profession to all other pursuits of our race. I have seen somewhere the lines, "God made the country, but man made the town;" and notwithstanding there is much of wisdom, power and wealth in the busy marts and workshops of our land, yet looming up above the din of clanging hammers, noisy wheels and smoking turrets, the serene star of agriculture shines in a calmer, purer, and more ennobling atmosphere. It is man's primeval profession. Far back into the dusky past, the men of standing, of worth and renown, were among the simple tillers of the soil, or shepherds on the browsy plain or mountain slope. From this class has arisen men of sterling honor and renown. That ancient and once powerful people, the Romans, seemed to venerate the occupation, when from the fields they called Quintus Cincinnatus to assist in restoring peace between contending factions in Rome. And when he had effected this most worthy of all human objects, he retired from the pageantry and grandeur of Imperial power, to the quiet of his rural home and his Attilia, left only at his country's summons.

But, to return to our subject—"The Farmer's Studio." Barren and monotonous must be the life of that farmer, if he has not a studio. By this, I mean the workshop of his physical and mental powers. If his knowledge consists only of those rude elements found among savage tribes whose nomadic character makes agriculture but a secondary object—well may he often be despondent and his vigor become paralyzed as he sees Nature's original productiveness and fertility vanishing under the tread of the iron heel of his plow. Soils are all one and the same thing with him, provided the plow will canter along. Of course his *shrewd* mind will detect that there is a difference between clay and loam—but this is the horizon beyond which he never sees. As to their constituents, or the properties of the plants he rears, or the powers in constant operation above and below his surface soil—he has no more conception than has a Laplander of the Torrid Zone or an untutored child in incipient arithmetic of algebra. As well might the child in mathematics attempt to solve its intricate problems, as for the unread, unreflecting farmer to succeed in producing rich harvests or raising fine stock.

In view then of the indisputable facts here offered, we ask every such non-reading farmer to at once renounce this improvident course, and resolve henceforward to seek the truth—to know the why and wherefore of those elements which produce such astonishing results on other farms.

Study your soils, your trees, your rocks and streams. *Read.* I think I hear such say—I have no time. It is nonsense. Ask yourself honestly, if you have not squandered away time—its fragments at least—in dreaming and dozing, or in fretting and pining over your losses and crosses—when the unbounded expanse of knowledge lay within your reach.

For a trifle—yes an insignificant amount—you can obtain a good agricultural journal—one suited to your climate and needs—one that has proved its excellence by years of usefulness—one that keeps up with the march of progress-

ive agriculture, and not one that sleeps while the world moves on with rapid strides.

By giving a small portion of each day to its study, such a farmer will soon have in his possession the tools of mental and physical power, by which he can uproot the maladies of his land and restore it to its primeval fertility—rendering the wilderness a fruitful field and the waste places joyous with golden harvests. Is there a man that doubts this? We must come to the sad conclusion that there are not a few, but many such skeptics. They regard knowledge as a dangerous thing, and sooner than spend a fraction of their passing days in its acquirement will content themselves to plod on until they finally bid the world adieu the sad victims of unlettered ignorance. We cannot charge this unfaithfulness to themselves, their children, and the world, on the score of penuriousness, for surely the small sum asked for an agricultural journal would not deter them—they are we think by nature generous—but it lies in their unbelief in the riches and blessings which a kind Providence has hidden in their lands and left there only for him who as a faithful steward seeks after as for hid treasure. Be wise, therefore, ye who sleep, lest your fate will be that of the man who built his palace on the sand, for if you will remain ignorant, sooner or later the breakers of ruin will be upon you with irremediable destruction.

Great International Wheat Show.

A great International Wheat Show will be held at Rochester, N. Y., Sept. 8th, 9th and 10th, under the auspices of the Monroe County Agricultural Society. The following premiums are offered:

For the best 20 bushels of White Winter Wheat,	$150.00
For the 2d best do do	75.00
For the best 20 bushs. Red Winter Wheat,	100.00
For the 2d best do do	50.00
For the best 2 bushels White Winter Wheat,	50.00
For the 2d best do do	25.00
For the best 2 bushs. Red Winter Wheat,	40.00
For the 2d best do do	20.00
For the best 2 bushs. Spring Wheat,	20.00
For the 2d best do do	10.00

Competitors for these prizes will be required to furnish samples of wheat in the ear and with the straw attached (say 50 ears of wheat and straw), also to furnish a written statement of the nature of the soil on which the wheat grew, method of cultivation, time of sowing, quantity of seed sown, manures (if any used) and mode and time of application; also, the time of ripening and harvesting, and the yield per acre, with such other particulars as may be deemed of practical importance; also the name by which the variety is known in the locality where it was grown.

The wheat must be one variety, pure and unmixed. The prize to be awarded to the actual grower of the wheat, and the wheat which takes a prize is to become the property of the Society.

It is hoped that farmers in all sections of the United States and Canada, who have good samples of wheat, will compete for these Prizes. We have never yet had a good Wheat Show in the United States. It is highly important that the wheat growers of the country should meet together and compare samples of wheat raised in different sections. We understand that the money for these premiums has been raised by subscription among the friends of Agriculture in Western New York, and the time of holding the Fair has been fixed so as to enable farmers to purchase their seed from the wheat entered for competition. A change of seed is always desirable, and it is believed that all the wheat of good quality sent to the Fair, will find purchasers at a high price.

Full particulars can be obtained by addressing the President of the Society, Joseph Harris, Editor *Genesee Farmer*, Rochester, N.Y.

Crops in Indiana.

Ed. Valley Farmer: I send you the following few lines for publication. We will have a good yield of peaches, pears and apples this season. Wheat generally good, and mostly of the Red variety. In passing over our county (Owen county), I notice a great many fields of wheat and rye—half and half, apparently, cast over the field—and some every stalk wheat. I am sorry to see so much neglect in this mixing of wheat and rye. We will have a large yield of wheat this year. Corn looks well in spots—it is uneven. Hogs are dying—a great many every day—mostly good stock, Chester White and Berkshire. Will your subscribers send us some good receipts for the cure of hog cholera? As to sheep—give me the Cotswold first.

Gosport, Owen Co. Ind. N. Asher.

Shingling Roofs.—If it is not too much trouble, dip your shingles in lime-wash before laying them. The lime will keep the moss off, and will make the shingle more lasting. Avoid poor shingles on all occasions. They will make your roof leaky, and that is what you don't want.

Theory and Practice of Agriculture.

There is something positively known in agriculture—facts established. For instance, we know that sand produces nothing. On the other hand manure, pure and rich, gives us little more. A well-balanced soil gives us the heavy crop. This soil may be made or natural. It matters not the least whether the hand of man, or the elements, form it. Give us sand, and manure, and clay, and we'll produce a crop for you. Whatever may be said against book-farming or theory, this much is known, that the best of crops, and without hazard, can be raised by artificial means, i.e., made soils.

The world seems full of theory. Farmers have too much of it. But the thing is indispensable, not only in farming, but in all the departments of life. It is the first step in the way to practice—the incentive. Theory is the animating thing, the principle that urges, leads us on, where otherwise we would do nothing.—Theory, therefore, is good, but only in its place and when it doesn't ignore practice. The two go hand in hand, and they work well together. We should, however, be careful that theory does not get the start of practice. Practice is the plow, the matter-of-fact thing that gives you the hard grain, the substance of life.

"Scientific farming is too much of a theory. I can get along better the old way. That is matter-of-fact; and we know what we are doing. I have tried your new-fangled notions, and they are—theory."

And our excellent friend—for he is truly, otherwise, an excellent man—walked off in his dignity, as thoroughly convinced as theory and practice can make him. He had tried book-farming. He had tried it from one of his father's old books on farming. He had plowed in his manure, deep, and thrown up the hitherto-untouched sub-soil to the surface. This was rich in clay and other materials, and was plowed in the spring. The book said, "turn your swarc in the spring with manure—plow deep, for corn." The result was a failure, not only for corn, but all kinds of grain. Books since say, "the raw under-soil, if clay, will not do to turn up and sow or plant on. The manure buried deep, and covered with a cold top-soil, will remain there undecomposed, and of no benefit."

The case here is, the first book was theory, the second theory and fact united. The farmer, therefore, who would none of your fanciful notions, was all the while acting upon theory. It was through a mistake, and one that should be avoided. Theoretical books will not do, unless put forth as such.

This same farmer has tried book No. 2, which taught him that this same soil of his must not be put to corn if it can be avoided, as the cold under-soil will chill the roots of his corn. It tells him he must plow lightly for grain—plow in the fall late, and harrow in his manure. It tells him to spread his manure, well rotted, on his worn-out meadows and pastures, mixed with ashes, and plaster, and salt. All this has been tried by him, not because he read the book, but because he saw the book backed up by practice. He sees the two, united, work well, but calls it all practice. His next and third step will show him the utility of the two—theory and practice combined. Practice is the corpse—theory the soul; the two, united, the living man. Do not attempt to sever the two: it is death. We must avoid extremes. Theory is beautiful; practice is beneficial—the two make life delightful. Too much theory will not do; too much practice will not—for practice may be without a theory, without a directing principle; as we see farmers practice from year to year the same thing over and over, till their farms are impoverished, worn out. Here, practice has been the death of the soil, and the ruin of the farmer—not only in means, but his bodily strength is exhausted, his limbs are stiff and harsh, he is bent and gnarled, and hastening to the grave. An excess of practice has done this. A well-directing, intelligent theory, would have varied his labor, and with less effort he would have performed more, and done it more agreeably. He would have been happier and healthier.—Our scientific, successful farmers are our happy farmers, hardly with an exception. Our wretched farmers, are wretched in person, in family, in all that pertains to them, and a blight to their neighbors. It is practice that does this, and bad practice at that—for practice is always bad when alone.

Turnip Culture.—Sand is the soil for turnips. We have seen them raised where we thought there was not sufficient soil aside from the sand (in fact, where it seemed pure sand,) to germinate the seed; and yet a good crop was raised. Sand is the life of the turnip. Take pure sand, mix a little clay and manure with it, and turnips can be raised. They will even do better in such a soil, as in other rich soils. The turnip for sand, corn for loam, and grass for clay.

When the heart is happy, it shows its bloom on the face.

FISH CULTURE.

The true object of fish culture or breeding, is identical with that of beeves, sheep, hogs, poultry, or any other article of food required by man, viz: the supply of quantity and quality in sufficient abundance, the re-peopling by the finny tribe of exhausted lakes, rivers and streams; the increase of the means of subsistence of the general community, and not the mere providing of abundant sport for anglers of leisure, who, returning with amply filled creels, detail wondrous "fish stories," redolent of their skill and prowess, by the winter fireside to admiring listeners. This is not the aim and end of fish culture, and in this respect the nations of continental Europe are far in advance of England or America. In Germany and Holland, especially the latter, fish culture is pursued as a regular business for supplying the markets with nourishing food at a moderate price; and the greatest skill is displayed by the cultivators in breeding every variety of fish, in immense quantities, and of large size—the greatest care being taken to select those varieties that are most valuable as articles of food. Large artificial ponds are constructed, and great care is taken to separate those species that prey upon each other—thus, in one pond, trout and salmo-hutchen are bred and matured, in another carp and tench, in a third pike alone, in a fourth eels, and so on. The hutchen is the most esteemed, on account of its rapid growth to a large size, and because it thrives faster than trout in trout-waters—experiments proving, satisfactorily, that this fish increases in weight as three to one over the trout; immense quantities of them are reared and preserved in certain large reservoirs in Germany. In France, as in Germany, the collection and fecundation of fish-ova is the basis of fish culture; and is a regular business with independent fishermen who supply the breeders with them. At the immense breeding establishment at Huningue, two francs per thousand eggs are paid to the collectors. A collector for the great Bavarian breeding ponds grew so rich at this business that he started an establishment of his own; it is recorded, that he has been known to collect and send off 200,000 eggs of the Danube salmon in addition to millions of other species of fish eggs. The cultivation and fattening of fish is no new idea, for the Romans adopted this method of supplying their tables. Sea fish are as easily bred and cultivated as fresh water ones—even the noble salmon, now so rare and high-priced in all the Northern States, could soon be made plentiful. Sea-ponds might be arranged to confine salmon, as you would deer in a park, until they had attained size and value for the market. On an indented coast particularly, this would be easily practicable. Quiet places might be selected where turbulent seas would not have to be encountered; excavations in some places might be partially or entirely adopted; any depth of water desirable might be secured at lowest water of all tides, by regulating the intake and outlet accordingly; with grating to prevent the escape of the fish. Innumerable fry of sea-fish would enter to supply food; shrimps, prawns, sand eels, &c. A series of inscales on the principal of a salmon cruive might be placed in the grating to permit the entrance freely of small fish to supply the salmon with plentiful food. Experiments might first be made on a small scale. Places might be found where a brook running into the sea-pond would be available to produce the smolts; where such did not exist, a brook in the vicinity might be made the nursery, and the smolts conveyed to the pond when the migratory state had arrived.

If the experiment should succeed, nurserymen would be found who would produce the young, and sell them when required, as men will rear lambs and young cattle on light soils, and sell them to those who possess rich pastures to grow them up and fatten them for the market.

There is no reason whatever, why ponds, reservoirs and lakes should not be peopled with myriads of fish, not only those which are indigenous to our country, but other varieties as the delicious turbot, sole, John Dory, &c., as it has been satisfactorily proved that the ova can be packed and sent immense distances, and even retains the vital principle after being frozen.—[*Ex.*

Foul Cistern Water.—A cistern should be cleaned out several times a year, or, what greatly aids in keeping a cistern clean, at the commencement of a shower (if for some time there has been no rain) the water should be turned off, as that contains washings of dust, insects, larvæ, &c. These will decompose in the cistern in summer, and get up a stench; water not only unfit for use, but unhealthy. Drugs will benefit the water; but the best way is make clean work.

If a tooth is filed or ground, sulphuric acid applied will relieve the after-pain. [*Experience.*

SWEET POTATO QUERIES.

Ed. Valley Farmer: Will you, or your readers, please inform me through the *Valley Farmer* in reference to the following queries:

1. Has the sweet potato ever been kept through the winter by any other mode than the one generally adopted—that is, good, dry cellars?

2. If so, which or what plan is the best?

3. Has the experiment been tried to keep them by covering them over with straw and boards, and then hilling them over as Irish potatoes and other roots are usually done?

4. Which is the best material to pack them in: sand, or common earth?

There are many situations in this region, and in fact throughout Illinois, whose positions are too low to have good cellars. Caves, I suppose, might answer as well as cellars. We know they are very liable to rot even in cellars or caves. Now, why may they not be kept as successfully hilled up like turnips or Irish potatoes? I cannot see to the contrary.

As I am only a beginner, you will see the object of this communication is to obtain facts in reference to the case, without further experience.

There is a great drouth prevailing throughout this region, and vegetables of all kinds are suffering very much. Unless we get rain soon, there will be a total failure in most crops, and especially the great staple, corn. A. G. D.

Pana, Christian Co., Ill., July 20, 1863.

MARL BEDS.

There are many marl beds scattered throughout the country, containing wealth for the farmer, who often is not aware of the fact. We doubt whether four-fifths of the people know what marl is. It is a bed of deposited matter generally under the soil, and of various colors, sometimes denominated clay. That containing sand is considered best. The great marl beds of New Jersey are principally of this description. Prof. Cook gives the following analysis of this marl:

Water,	10.260
Silica,	46.660
Prot-Oxide of Iron and Alumina,	24.921
Potash,	6.818
Lime,	2.865
Magnesia,	3.089
Phosphoric Acid,	3.599
Sulphuric Acid,	0.982
	99.194

Here it will be seen are fertilizers. The potash is important, though but a small quantity, comparatively, is found. The phosphoric acid is also important though but a small portion. The sand or silica is in the largest proportion; and this is dissolved as the marl is decomposed.

This wealth, in these marl beds, should be hauled out and applied to the land. All poor or ordinary soils are benefitted by it; and it is good to keep land in heart as well as rich. Try a little, where your land needs recruiting.

FACTS FOR FARMERS.

Agriculture is the life of the world. It feeds and clothes the world. About six thousand million dollars are invested in agriculture, which is about five-sixths more than all the other capital together. The country gains about fifteen millions yearly by farming. In the State of New York, where is the great trading city of New York, the farmers pay about four-fifths of the taxes.

It is seldom a farmer is sent to the penitentiary, in comparison with other professions.—Farmers have graced all the distinguished offices.

Only from two to four per cent. of bankrupts are farmers.

The healthiest people are farmers; and the most contented also.

A farmer seldom breaks down, unless he has other business connected with his farm.

What will do for one season (on a farm), will not always do for another. Drouth, rain, excess of heat, unusual prevalence of insects, and frost (in the ground), have much to do. We should farm upon *general* principles, and take advantage of others as much as may be at the time. Consequently each man must determine for himself.

Plowing land wet, and then letting it dry, is working on the principle of making brick—the wetter and more dried, the more like brick.—Therefore, to the degree that we avoid the brick, will be our success so far as the working of the soil is concerned. "But the frost will remedy this." But it will not, only in a measure, and that a small one. Hence, the frequent lumps in the spring—of fall plowed land.

Millions of dollars' worth of grain and grass is lost by cutting too ripe.

Flax should be sown early. It will stand the frost somewhat.

Winter Wood, prepared in advance, and well seasoned, will make a sweet tempered wife, a warm room, and a cleanly, well cooked meal. It will cost less wood. It will work easier when green than when dry. It will make more ashes, which are among the best of manures.—It will be a satisfaction to a man to know he has such wood on hand. Your fire will seldom go out; and if it does, it can readily be built with seasoned wood—but, can it with green?

Now, this is quite a string of inducements in favor of dry wood. There are still more. Dry wood is as cheap as green to furnish.

TAKE CARE OF YOUR LAND.

Justus Liebig, in a new introduction to his *Agricultural Chemistry*, warns Europe and the world against exhausting their land. Deterioration is constantly going on, and when once thoroughly worn out, the productive capacity of the soil is permanently injured. Here is the paragraph—

"It is in vain to hope that a field in Greece, in Ireland, Spain, or Italy, which is known to have once yielded abundant harvests, will ever return anything like them, even though subjected to the highest cultivation."

But the Professor cannot mean that manure, and the known requisites of a good soil, cannot restore the ancient fertility, that is, the amount of ancient fertility. He explains it in another part of his discourse.

"No land is rich enough to make up for its waste after a certain time; and even though it were sufficiently wealthy to purchase all the manure required for the purpose, *there would be no market at which it might be obtained.*"

Hence it is that old countries are depopulated, in part, and reduced in wealth and prosperity. Ireland is an instance. The deterioration of its soil is the cause of its emigration and poverty. So with the once famous Greece and Italy, and other countries. This is the Professor's logic. He wishes to enforce attention before the soil is hopelessly impoverished. A little added each year will continue the soil good. And this alone can be the true theory. For it is an impossible thing to hurt the *constitution* of the soil, as we say of the constitution of an animal or a man. There is no life or organism in soil. It is a mere aggregate of simples in a lax condition, and may be artificially accumulated.

A single crop takes but little from the soil—only that part which comes in immediate contact with the roots. It is hence that a deep, rich soil will last for many years, for centuries even, and, where treated leniently, a thousand years. Of course, exhaustive crops will make short work of even a good soil. We know land that has been fifty years in tillage without a handful of manure; no green crops plowed under; the only chance the land had being pasturage: and, yet, there is little deterioration.—Where grazing and the turning in of greensward was repeated, the land exceeded, in favorable seasons, its former fertility. But it needs this attendance. A thoroughly exhausted soil can only be reclaimed by an artificial, except in the few coarse elements. It is the air, the rivers, and the undersoil (in privies and barnyards), that loses us the strength of our lands. By-and-by this will be felt—if not by us, by our children, or our children's children.

How Plaster Affects Vegetation.

It begins to be known more definitely how plaster affects vegetation.

Plaster, or gypsum, is composed of three things—lime, sulphur, and acid. The acid is combined with the sulphur, and forms sulphuric acid; this combined with lime, makes sulphate of lime, or plaster.

Analysis has established the fact, that all plants contain sulphur. Sulphur, then, is a necessary ingredient, and plaster furnishes this; hence, one effect of plaster—the sulphuric acid, (composed of oxygen and sulphur,) is taken into the circulation, and the sulphur appropriated by the plant, the oxygen escaping as is known.

This is one effect. Another is, the lime—which is a large proportion—the effects of which are well known (or at least to some)—for even this excellent manure is not as well understood as it should be.

A writer, who discourses upon this subject in the *Germantown Telegraph*, states another, almost ludicrous effect—heat.

It is well known, that water, mixed with sulphuric acid, evolves heat. It does this to a great extent under some circumstances. Now, as soon as the sulphuric acid contained in plaster comes in contact with the dew or rain, heat will be given out. This is literally true; but whether there is sufficient to affect vegetation perceptibly, is another point. It affects it, however, undoubtedly.

There is still another thing: Plaster absorbs moisture. In a drouth, it will take it from the atmosphere, and thus impart it to the plant.—Hence, the effect of plaster in a dry time. This is well known. The above writer also holds that, plaster sowed early, is less beneficial than when applied later. The middle of April is better than the first, and the last better than the middle. This is experience, but not theory. It has been held heretofore that plaster should be sown as early as possible, immediately after the snow left the ground. We have known farmers, when exhorted to sow early, shake their heads. Their "experience taught them plaster must be sowed when the dew is on the leaves."

"Well, but how long will the dew last? The sun dries it up in an hour or two?" All was to no purpose—

"It must be sowed while the dew is on."

This was experience. And now we have "philosophy" to back it up; for the new theory announces that "plaster sticks to the leaves of the plant, which are giving off carbonic acid; this acid has a stronger affinity for the lime than the sulphuric acid has, and accordingly takes the place of the latter, which is set free and absorbed by the plant. The carbonic acid and the lime, forming carbonate of lime, falls to the ground and benefits vegetation." It is, therefore, the sulphur and lime that benefit, according to this theory. And it looks very reasonable. There may be other principles besides the minor ones enumerated; but these are certainly sensible and efficacious.

It is also held that plaster burnt, has more effect than when applied in the raw state.

In an investigation into the mysteries of plaster, at Paris, after much discussion, it was concluded to refer the matter to a number of the best farmers. Some parties were selected.—Their opinion was, that Plaster benefitted the soil little or nothing; that on moist ground it had no effect. This latter is our uniform experience. It is only in drouth that we seem to get the full benefit of plaster. Is it because plaster absorbs moisture, as stated above? We have no doubt moisture is absorbed by plaster. We have witnessed it, that is, we find grass or grain —especially grass—wet later in the day, if sowed with plaster, than without.

Another thing may be inferred from the experience of our Parisian savans—that plants derive their effect through plaster from the atmosphere. This is an excellent thing if true—and it has long been pointing that way—making the atmosphere a great compost heap, ready to hand to be drawn from. It affects, however, only certain species of plants. Peas may be put first; clover next. Grass is also benefitted; and so are potatoes. Corn little; turnips some. We have seen its good effects upon oats and barley, having used it expressly for experiment. But the season must be favorable, else its effect upon grain is hardly sensible.

The great point with plaster seems to be, that its effect is direct upon the stalk, and not upon the seed. Hence, the grasses come in fipely—but not the grains. Hence, potatoes are benefitted; as the tuber of the potato is but a continuance of the stalk. The riddle of plaster seems in a fair way of being solved.

It is said, that controlling one's temper is the greatest achievement. Can the reader say he has tested it? If he has, he will have been surprised at the effect.

[Written for the Valley Farmer.]

KEEP BEES.

BY M. QUINBY, ST. JOHNSVILLE, N.Y.

No one, without bestowing considerable thought and attention to this subject, can fully realize the extent of the loss sustained by the country through failing to take care of the blessings so liberally bestowed, almost like the manna from heaven.

Thousands of tons of honey are annually produced, only to be wasted on the desert air, all for the want of proper attention in collecting it. The person who fully understands the extent of the loss, must feel very much like an economical farmer, who looks upon thousands of acres of wheat ready for the harvesters, and yet sees it all wasted because a little forethought was wanting to provide laborers to gather it.

We see an army of laborers go forth to toil in the production of the cane, an immense amount of labor extracts its juice, and renders it into a palatable sweet. The forests of the North contain acres of maples that furnish materials for a similar product, obtained by an amount of toil to almost balance its worth when ready for use. But here we have an article that costs nothing to produce it. We are not indebted to China for its origin, nor is the special labor of the husbandman required in its cultivation. It is produced by forest and lawn, field and garden, even our very road sides teem with abundance! It is not confined to the South, to the East or West. It is only when we approach the frigid North that we find a failure.

And must the waste of this delectable sweet continue? It must till people are satisfied that they can make its collection remunerative.

Most men have a mission peculiar for something; it may be mine to demonstrate the feasibility of securing to the country its millions now wasting. We can better convince the skeptic of what *may* be done, by showing what *has* been done.

In the summer of 1856, there was collected from an estimated area of ten miles square, over 42,000 lbs. of honey. The number of stocks in spring that collected it, was about 800; the increase by swarms, after supplying the failures, diseased ones, &c., in the original number, about 400. 22,000 lbs. of this product (including glass boxes), was surplus or box honey. 12,000 was stored by the new swarms (30 lbs. each, a low estimate). 8,000 was taken from the old and deficient stocks that had to be taken up. The amount in the new swarms that took the place of old ones, and the old stocks for wintering the bees, is not estimated, because it is not available as profit.

Ten miles square being an area of 100 square miles, would give one square mile for every eight stocks, thus producing 420 lbs. of honey to the square mile. Taking these results as a basis for an estimate of what is wasted, we will see what was produced by the State of New York alone, which contains 47,000 square miles. Supposing each mile to produce 420 lbs. we have an aggregate of 19,740,000 lbs. Should we go further, and take the millions of square miles in the United States and Territories at the same rate, or a tenth part of it, it would go a great way towards furnishing us with a sweet in abundance, at least in productive seasons. The probability is, that not a tithe of the honey produced on this area of ten miles, was collected, if we judge from the number of stocks maintained on a square mile in some parts of Europe. Quotations by Mr. Langstroth state, "In the province of Attica, in Greece, containing 45 square miles, there are kept 20,000 hives." "East Friesland, a province in Holland, containing 1,200 square miles, maintains an average of 2,000 colonies per square mile."

It should be remembered, that the honey secreted by the flowers of to-day, must be taken to-day by the bees, or it is forever lost. It is unlike the ungrazed grass of to-day, waiting for the feeding ox of to-morrow.

The summer of 1857 produced only about one quarter of the before-mentioned results. The one season being the best, and the other the poorest we have ever known. The two together would make an average of about 26,000 lbs. that might be expected annually from that number of stocks. Taking this average as a data, What would be the cost per pound? One man can take charge of 100 stocks, or one-eighth of the whole; but it would require only about two months of his time in the year; yet nearly another month would be required by a mechanic, or a man sufficiently skilled to use a handsaw and hammer, to make hives, boxes, &c.; say, the labor would be $75, cost of materials $50. Now, if no interest is received for money invested, the honey costs less than four cents per pound. But if we take the price that honey commands in almost any market, 20 cts., the 3,250 lbs. (the average amount that 100 stocks would collect) will amount to $650. Deduct the expenses, $125, for labor and material for hives and boxes, and there will be left $525 for the annual profits of bee culture, which ought to be enough, in one season, to pay all necessary costs in purchasing stocks to start an apiary of that extent. Several instances are known, where the products, aside from the increase of stocks, sold for more than sufficient to pay all charges, in care, as well as the original cost of the apiary. This is paying very well for labor and money invested. What pays better?

We have shown conclusively, it would seem, that there is sufficient material in the country for extensive operations. We have shown also that its collection is practical, and at the same time a profitable business. All that now seems wanting to render this product available, is the energy to acquire the requisite skill for the proper management. By a few this has been acquired by patient, persevering effort, sufficient at least to succeed for many years without any aid but what was gained by experience. It is now quite different. The inexperienced can, if they choose, take the shorter route, by appropriating to their own use the experience of others found in the numerous treatises on the subject.

Many a reader will probably acknowledge the truth of the foregoing, but yet exclaim: "Oh! we don't expect to have any luck"—or, "we have tried, and lost all for the want of it." Discard such an idea! As long as we depend on these accidental chances, so long must we expect accidental success, and remain altogether ignorant of the proper mode of management

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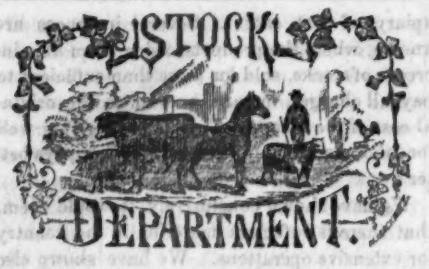
Forests a Necessity of Fertility.—The value of forests to a country in retaining moisture, is well illustrated by the late severe freshets of the Connecticut valley. The snow melts quicker in an open country, and is retained longer among groves. Formerly the Connecticut river and its tributaries were clothed with forests; now, they are largely denuded, and we have reason to expect greater freshets than formerly. The present barrenness of Greece and Palestine as contrasted with their former fertility, is similarly accounted for. Dr. Unger, a celebrated naturalist of Vienna, claims that the climate lacks its original moisture.—He says that the hordes of warriors that have followed each other for centuries on that soil, have burned up the forests, and every effort of nature to make restoration is subdued by a superabundance of goats. The population live on the products of the goats, and the goats crop every twig, thus bringing barrenness. If the forests should ever again grow, Dr. Unger thinks fertility would be restored.

Indian Corn as a Fertilizer.—A writer in the *Country Gentleman*, says he has received no benefit from turning under a thick bed of Indian corn. In three weeks after it had been plowed under, it could not be found in the soil: it had "vanished." Will some of our readers give us their experience?



[Reported for the Valley Farmer.]

ON BIG HEAD.

By Geo. H. Dadd, Sen., V.S., Chicago, Ill.
Lecture delivered before the Boston Vet. School.

This subject is one of great importance, from the fact that this disease, familiarly known as *Big Head*, prevails to an alarming extent in the South-western States, and very little is known of either its causes or pathology.

As the disease generally originates in and about the osseous tissues of the head, it is highly necessary that we understand the mechanism of bones, hence I shall make a few remarks calculated to enlighten you on this subject.

Bones have many things in common with the soft tissues and organs; for example, arteries, veins, nerves, and connecting cellular web. Their structure in the embryotic state, is vascular, yielding and gelatinous. They have a fibrous investment externally, termed periosteum, which is well supplied with arteries, veins, nerves, and absorbents, and by means of this fibrous tunic, vessels are distributed to the bones and their internal surfaces, and here also we find a fibrous membrane, similar to the one on the external surface, only more delicately organized. A portion of the cavity found in the shaft bones, is occupied by a considerable amount of adipose matter, known as marrow, inclosed in laminated cells.

Bones consist of two constituents: animal basis and calcareous matter; in the healthy adult, the proportions are as follows—Animal matter 33⅓ per cent.; calcareous, 66⅔ plus 100.

Bones which contain certain distinct central cavities, as the antrum of the jaw, for example, are not connected in their centres by osseous, but by cartilagenous unions; so that they expand, fall apart, or burst, when the cartilagenous braces are decomposed.

The growth of bones, like that of shells, is effected by the addition of new tissue to that already formed.

The ultimate constituents of bones, are gelatine, animal matter, carbonate and phosphate of lime, fluate of lime, phosphates of soda and magnesia; the solidity of bones, therefore, depends on a due proportion of the same. Should there be a lack of phosphates, the bones lose their cohesive firmness, and become soft, this constitutes the disease known as *mollities ossium*. The disease known as *caries* is a pathological condition analogous to ulceration, occurring in the soft parts.

We are now prepared to examine and form an opinion on the character of the disease now under consideration. The specimen of Big Head, which I now offer for your examination, was forwarded to me by my friend Dr. Gordon, of Georgetown, Ohio; you will perceive that the walls of both the upper and lower jaw have all undergone dilitation in lateral directions, so that the width of the same is about three times the ordinary size, and on inspecting the interior, you will see that the cartilagenous connection or braces are all decomposed; hence the dilitation.

This dilitation has, no doubt, partly been accomplished by the presence of a large quantity of purulent matter, now in a dried, spongy condition, which has almost burst the bones apart. The bones, as a whole, appear to have lost their cohesive firmness and vitality, and are bordering on a state known as necrosis. I have removed a portion of one of these bones, which has been macerating for the past twelve hours in a weak solution of muriatic acid, and you see that it can now be rolled up like a piece of paper, showing very conclusively that it is deficient in calcareous matter. Had it taken several days to abstract the same, the experiment might not have been so satisfactory; the animal matter preponderates, and a knowledge of this fact can be used to great advantage in the treatment of the malady, in its early stage, for it clearly indicates that phosphate of lime must be our chief agent; it should be combined with remedies possessing tonic and stimulating properties; hence I shall recommend the following formula:

Powdered phosphate of lime,	-	4 ounces.
" golden seal,	-	1 ounce.
" sassafras bark,	-	2 ounces.
" African ginger,	-	1 ounce.

Mix. Dose, 1 ounce, daily.

I recommend the phosphate, in conjunction with the other agents, because the function of nutrition may be deranged, and the latter agents tend to give tone and energy to the same. It is well known that the maintenance of the functions of animal life are almost entirely de-

pendent on the due performance of the nutritive operations, and therefore the integrity and properties of all the hard, as well as soft tissues, depend on their regular nutrition by a due supply of perfectly elaborated blood; this cannot be effected, unless the functions of circulation, respiration and secretion, be performed with regularity. Circulation is necessary to convey a supply of nutritious fluid. Respiration and secretion, separate the blood from its impurities. Therefore, I advise you, in all cases of this character to endeavor to improve the general health of the animal by such means as I have suggested, and at the same time see that the animal be fed on that kind of food which is calculated to promote the integrity of the organism; and you should advise the use of that kind of food which is rich in phosphates. It is very difficult to define the causes of a disease of this character. It may originate from a peculiar morbid habit, or idyosyncracy, or it may be the sequence of faulty nutrition. When an animal labors under any morbid habit of body, he is in a state far removed from that of health, and various parts of the body become affected by the change, and even, should the power of forming good healthy blood remain, the organic force by which the constituents of blood are transformed into osseous structure, must necessarily be enfeebled by the morbid habit, so that the power to produce metamorphoses is necessarily diminished. It is my opinion, and you may judge for yourselves, by inspecting the various specimens now before us, that Big Head usually commences in the fibrous tissues which are found in the internal surface of bones; a very peculiar feature of these fibrous tunics is, that when they once become diseased, they run rapidly to purulency, and this accounts for the large amount of purulent matter, now in a dry state, which you see occupies the immense cavities between the walls of both upper and lower jaws. A very distinguished French writer contends, that "fibrous tissues hardly ever contribute to the formation of pus." This is evidently an error; for you are aware, that when the periosteum (a fibrous tunic found within the alveolus and reflected on the fang of a tooth) becomes inflamed, it often suppurates, and in consequence we are often compelled to remove the tooth. I contend that it is the most common tissue that excites the flow of those exudations from arterial capillaries, which become converted into pus; hence we often find collections of pus both above and beneath the fibrous fascia and aponeurosis of muscles; on and beneath the periosteum, and in the vicinity of fibrous tissues in various other parts of the system.

If in the early stage of Big Head you can detect, and even have good reason to believe that the cavity within the jaw bone is the seat of accumulated pus, I would advise you to cut down upon the jaw and make a pendant opening into the same by means of bone forceps or trephine; in this way you liberate the imprisoned morbid matter, and have an opportunity to inject the cavity. The injection should consist of pyroligneous acid and sanguinar canadensis, in the following proportions:

Pyroligneous acid, - - -	4 ounces.
Powdered blood root, - - -	1 ounce.

Throw a portion of this mixture into the interior of the jaw, once daily, for a short time, by means of a glass syringe. Of course it will be necessary to improve the general health by the means just alluded to.

Big Head, has hitherto been named *osteo sarcoma*, and I also have named it so; but I think *ostitis* would be a more applicable term for it; for *ostitis* is a disease of inflammatory type, accompanied by synochoid fever, soon followed by suppuration; whereas, *osteo sarcoma* is a slow caries of bone, involving the soft parts, elevating the skin in the form of a conical tumor—discharge from the same, ichorous, corroding and fetid. Therefore, I contend that the term *ostitis* when applied to a disease such as you now see before you, gives us a better idea of its character than we have hitherto entertained.

SOME SHEEP STATISTICS.

Ed. Valley Farmer: Presuming that you are fond of all kinds of figures (statistical as well as rhetorical), I submit herewith the result of my year's experience in wool growing.

I sheared 267 sheep, mostly grade French Merinos, kept with good ordinary care. My bucks I have procured, for four or five years, of A. B. McConnel, of Springfield, Ills., but two years since I bought a Cotswold buck of Wm. Gill, of Bunker Hill, and his progeny makes a new and different cross.

The figures I propose to show, exhibit nothing remarkable in the *amount* of yield, but are interesting as furnishing facts in regard to the relative yield of the different ages and sexes.—I have read many *larger* stories, especially a Californian one, which was the biggest thing in the wool way that it has ever been my fortune to encounter. But I do not propose to tax the credulity of your readers. Here are my figures:

KINDS OF SHEEP.		WEIGHT OF FLEECES UNWASHED.			
		Total.	*Average.*	*Highest.*	*Lowest.*
32 yearling ewes,	French Merino grades,	143.75	4.48	6.25	2.50
31 " "	Cotswold grades,	143.50	4.63	7.25	2.50
18 " wethers,	French Merino grades,	106.75	5.93	7.25	4.25
24 " "	Cotswold grades,	135.50	5.64	7.00	4.00
31 two-year old ewes,	French Merino grades,	157.50	5.08	7.00	3.75
28 " wethers,	" "	177.75	6.35	8.00	4.75
28 three-year old ewes,	" "	159.25	5.69	7.00	5.00
18 " wethers,	" "	133.00	7.39	11.25	4.25
26 four-year old ewes,	" "	128.25	4.93	7.00	3.50
28 five-year old and over ewes,	" "	120.75	4.31	5.75	3.50
1 Cotswold buck,		9.00			
1 French Merino buck,		8.00			
1 " "		12.50	9.83	12.50	8.00
267		1435.50	5.37	12.50	2.50
	Recapitulation.				
	176 ewes,	853.00	4.84	7.25	2.50
	88 wethers,	553.00	6.28	11.25	4.00
	3 bucks,	29.50	9.83	12.50	8.00
	267	1435.50	5.37	12.50	2.50

Several interesting facts appear upon examining this table:

1. A ewe appears to produce her heaviest fleece at three years old, and then to decrease in her yield.

2. The difference in yield between a wether and a ewe is nearly one and a half pounds, which must be taken into account in the comparison of respective profit.

3. The Cotswold, thus far, does not show the increased weight of fleece anticipated by a cross.

4. Some support is given to the charge made against the French Merino of not maintaining its early reputation for a heavy fleece in its middle and old age.

A word now on the profits of sheep growing. These 267 sheep have produced this year—

1435½ lbs. wool at, say, 35 cts.,	$502.42½
104 lambs " $2	208.00
Total yield,	$710.42½
Yield per head about,	$2.70

Deducting $1 for keeping, the profit per head is $1.70, and reckoning the average price per head to be $4, the dividend declared is 42½ per cent. per annum, which I submit is better than raising hogs and hominy.

Madison Co. Ills. FARMER FREEMAN.
June 29, 1863.

FOOT-ROT IN SHEEP.—This annoying disease may be cured, says a foreign authority, by applying butter of antimony (*muriat antimonii*). Pare the hoof till all the rough points are removed, and then apply the caustic. Apply every second or third day.

A SHEEP FAIR.

Onondaga County, N. Y., held a sheep fair, at which some sixty sheep were exhibited. The sheep were owned by forty individuals. The novelty of the thing was, the sheep were sheared on the ground, and the thing was most satisfactory. The day was beautiful and everybody was pleased. There were many people of almost all classes in attendance.

This is right. Let us have separate branches of farming represented. They will then receive proper attention, a thing they never get at general fairs. In such a case, a thorough examination is made, and the thing is impressed upon the mind. Give us separate shows for separate farm products. Fruit shows, in particular, would be most interesting, with samples to sell, making a feast in fact as well as in fancy. Thus, a show of the strawberries of a county. What an exhibition! what an entertainment! what information disseminated! We want such things.

CHAFING UNDER THE COLLAR.—A gentleman who has tried the plan successfully for five years, communicates the annexed method of preventing horses from chafing under the collar: He says he gets a piece of leather and has what he terms a false collar made, which is simply a piece of leather cut in such a shape as to lie singly between the shoulders of the horse and the collar. This fends off all the friction, as the collar slips and moves on the leather, and not on the shoulders of the horse. Chafing is caused by friction, hence you see the thing is entirely plausible. Some persons put pads or sheep-skins under the collar; these, they say, do as much hurt as good, for they augment the heat. A single piece of leather, like that composing the outside of a collar, without any lining or stuffing, he assures us is better than any thing else.

From Wilkes' Spirit of the Times.

BLOOD LETTING.

BY GEO. SCULLY, M. R. C. V. S.

Although blood letting is not practiced to the same extent that it was formerly, still it is advocated by many noted writers in their works on veterinary medicine. But certainly they now give limits to a measure which but a few years back had little or none. From the tone of our professional mentors, it appears they are reluctant to yield to the innovations of the young school, or else, because they were not the first to discard blood letting, obstinacy prevents their acknowleding an error which has been too long riveted on us by no other claim than its antiquity. Allopathy had little time to lose when it ceased to drug and drench. If it had continued but half a score years longer to dispense medicines according to their old formulas, I have little doubt but that homœopathy, and those doctors who heal through the medium of the spirit world, would to-day hold a very exalted position; and if mankind has benefitted by the mumblings of the clairvoyant, or the homœopathist's sweet tongue and sweet pill, enveloping the phantom of some drug, it has certainly to thank the slow reforms of the old school of medicine.

I do not believe that, even with the ingenuity of the American people, clairvoyancy could ever be applied to the treatment of equine disorders. I would credit the clairvoyant for any want of brass, (and certainly his feelings would be tough enough to resist the annoyances of stable boys,) but to make us believe that horses have spirits like dogs (which they have succeeded in doing) would be tasking our credulity too much, which is a pity, as it would be a very imposing ceremony to knock up from the silence of the tomb the ghost of Flying Childers or Godolphin Arabian.

Homœopathy has been practiced on horses, but it is difficult to conceive how the practitioner could have arrived at conclusions, as the action of medicines on horses and on man is not always identical; and, to carry out a course of experiments according to the rules laid down by Hahnemann and his original followers, the subject would require the power of language, and, I believe, a heightened imagination, to note effects so infinitessimally nice. There is much in faith, and the whispers of hope have often carried the patient in safety beyond a crisis; but here the very best part of homœopathy would be lost on veterinary medicine—at least as far as the horse is concerned. I say horse, for I have witnessed many cases of fatal distemper in dogs, which I believe might have terminated otherwise had the patient not been removed from his home and the sympathy of his master to the kennel of an infirmary. There is one merit about homœopathy, that it is the best system of medicine for a tyro to follow; and had Gulliver been initiated into its mysteries, he might have won much credit as a physician in the land of the Lilliputians.

There is no branch in physiology so perfectly demonstrated as the offices of the blood; and, if science endows its student with reason, the modern pathologist and physiologist, reviewing the past and present of blood letting, can have little difficulty in admitting that its practice is more destructive to horse property than all the other evils of medicine jointly together—indeed, I have heard my esteemed preceptor, Professor Spooner, say that if a few generations of horses could be brought from the dead to give testimony against their doctors, it would go to show that the phlegm has caused more mortality amongst the equine species than any of the individual classes of disease to which they are subject. It is a sad reality that the services of many thousands of excellent animals have been lost to us through a disregard of that principle—the preservation of vital force—which is the corner-stone of medicine; not the false philosophy which allows life to ebb through an open vein, wasting the fluid which the Almighty, in his ingenuity, so formed as to give sustenance to every fibre, secretions to the working springs of the animal machinery, and heat to support its vitality.

In books on farriery, and even in some modern works on veterinary medicine, blood letting is recommended impressively as the practitioner's sheet anchor in the treatment of inflammatory diseases. Impiricism, unillumined by the lights of progressive science, goes further, and applies it to debilitating disorders, where no inflammation exists; and if a patient dies from the effects of this enervating operation, the phlegm is never claimed for bringing about his demise, for those who believe that bleeding is good for horses, under any circumstances, are legion. It is but a few years ago that young, healthy horses were bled regularly, both spring and fall, in Europe, under the supposition that the bad humors of the body would gain exit thereby. The same practice is still in vogue on this continent, horse owners and farriers having a vague idea that it confers a benefit by cooling the system, and rendering the animal less liable to di-

temper, influenza, or strangles. Those who are initiated into the tricks of sale stables may have learned that the phlegm is often employed as an agent in getting up condition. But what is that condition? It is a dropsical disposition of body, induced by the laxative influence of blood letting, followed by an amount of food which the weakened digestive apparatus has not power enough to form into the elements of real flesh. Such condition may cover imperfections and give a pleasing rotundity, but it is only blubber.

The annual bleeding of young horses cannot be too much deprecated, for it is to the blood that the various parts comprising the animal are indebted for their formation. In the adult stage of life, when everything has gained its full development, it is only necessary that the waste consequent upon the wear and tear of existence should be supplied with new material for its repair. But in the young animal, as well as to repair waste, the blood has to supply the elements for the full development of each particular structure, until maturity is arrived at; and hence this practice of bleeding young horses drains from the system the very materials necessary for their development, and by inducing an impoverished condition gives rise to a variety of diseases, and deprives them of sufficient constitutional strength to throw off those maladies peculiar to their youth.

[Conclusion next month.]

THE COW MILKING MACHINE.

This American invention, after having been for some time before the public in this country, was shown at the International Exhibition at London last summer, where it attracted much attention. Although frequent notices of the machine have appeared in the English papers, we have seen nothing very definite in regard to actual trials with it in Britain till we met with the following article in the last number of the *Scottish Quarterly Journal of Agriculture*, in which the editor gives an account of some experiments made, apparently, with care and precision. He says:

"We have lately had an opportunity of working this novel invention, which has been prominently brought before the public. Everybody who has read a description of it, is aware that the machine consists of a tin can, on the top of which is placed the milking apparatus. This apparatus consists of four finger pieces made of India rubber, and having wire coil for increasing strength and stability. The teats of the cow being fitted to these finger pieces, the operator works a two-handled air-pump, which sucks the air from inside the body of the machine, which is in direct communication with the finger pieces, and by the external pressure of the air on the finger pieces, the milk is forced out of the teats.

We have made four separate trials with the machine, and here note the result for the information of those who may feel interested in the subject. We may remark that we worked it with our own hands on each occasion. At first we experienced some difficulty in using it. It is not as easy as might be supposed to fit the finger pieces on the teats air-tight: and when they are so fitted on, a restive animal is liable to throw the whole out of gear.

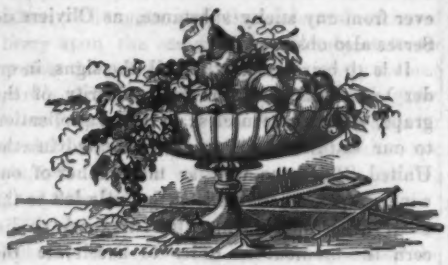
We attempted the milking of three cows on the first trial. From one which was milking from 5 to 5½ quarts at a meal, we obtained 4½ quarts; another, which has very uneven teats, we could not milk at all; and from the third, which was only milking 2½ quarts at a meal, we were only able to obtain a little more than a quart. All our subsequent trials have been attended with similar results. The conclusions to which we have arrived in reference to this machine, are the following:

1. It will not extract all the milk from the cows. If it should be found to answer in every other respect, this is no fatal objection to its use, as the stripping could be milked by hand.
2. Cows that have good teats, well set in the udder, can be milked to within half a quart to a quart of their full milk.
3. Cows whose teats are uneven, can with difficulty be milked.
4. We doubt very much if any amount of experience and perseverance will overcome the difficulty of milking kicking or restive cows."—*Boston Cultivator.*

Can Horses Do Without Water During Summer?—Adam Bander, of Steuben Co. N.Y., turns his colts into pasture in the spring without a drop of water during the summer, save what the grass and the dew afford. His colts do as well as is usual when water is furnished. It is the first instance of an attempt of the kind that we know of.

This reminds us of the habits of some people, who drink less water than others, though eating the same amount of food. We know some such cases where not half the water is used. The things seems almost a mystery, yet the facts are clear. F.G.

[Mr. Bander ought to be treated as he treats his colts, till he learns to be less brutal.—*Ed. V.F.*]



HORTICULTURAL.

[Written for the Valley Farmer.]

Treatment of Vineyard: Recapitulation.

[Continued.]

BY LOUIS L. KOCH, GOLCONDA, ILL.

Removal of Leaves.—In order to give greater access of air to the grapes, that foliage alone should be removed which is found upon the so-called bearing branches. In luxuriant growth —even upon vines correctly trained—they cover over the fruit rods with their grapes, thus receiving sufficient shade and protection by the three leaves above them.

Consequently, in order to a circulation of air, many leaves are to be removed upon such parts of the just named bearing branches, where the espalier is spread over too thickly by them, and where the grapes cluster too closely and thickly, but by no means in order to expose the young grapes to the rays of the sun.

Here, in Southern Illinois, 37½° N. latitude, this part of the labor may be begun, without any detriment whatever, by the middle of June; and thus simultaneously with the cutting out of the scions, and in agreement with its wants, may be continued to the maturity of the grape.

The largely prevalent view, that "the grape ripens in the shade," rests upon truths long since confirmed. As little as the grape can prosper and ripen beneath a shade occasioned by different objects, as, for instance, trees overgrowing them, or the like, just as indispensable to its success is the shade of its own leaves.

Permit me to add some experience gathered from my own practice on the subject, which requires for many a wine-grower even to be made clear. In the beginning of August, 1861, a change occurred in the temperature from a moderate warmth to a burning heat. Chiefly at the portion of my vineyards lying to the south-west, a certain blemish (produced by the burning of the sun) became visible upon the grapes exposed to the sun's rays. The grape thus affected, receives a dot or mark of the color of clay, which is soon seen entirely to cover it—at times but partially. In the former instance, shrinks and falls off—in the latter, the part affected merely shrinks while it heals all around, and the unaffected part matures.

Upon the Delaware, that valuable grape, I have seen the berries shrink off bunches that had little or no shade, without exhibiting as usually that over-ripeness; and when the berries were plucked, it became evident that even the stalks and smaller stalks had dried up, and so could not supply the bunch with nutrition, which by no means indicated any disease peculiar to this splendid grape, but merely its special want of shade, as such bunches as were in the shade were in every part sound, and had attained to the highest maturity, yielding a rich, sweet must.

In the same summer, about the beginning of August, the foliage of the Catawba, which had been so promising up to this time, became so injured by some atmospheric influence that it soon assumed a sickly yellow color, and by the middle of the same month nearly the entire foliage dropped off. The vines now presented a sad spectacle. Thus, robbed of their respiratory organs, the rather numerous and but slightly diseased grapes, hung scarcely perceptible upon the leafless vines, while they were progressing to their maturity at a dissimilar rate. Despite of the delay of the harvest, the berries never received that handsome blue generally adorning my Catawba grapes, and in order to obtain a somewhat tolerable wine, we had carefully to assort them at the harvesting while experiencing many interruptions at the same time.

If I have demonstrated by a reference to the above evidence (realized in so short an interval and so limited a sphere of operation), how very necessary the shade of *its own foliage* is to the grape, and how very detrimental the consequences of its removal prove, no farther caution for the non-connoisseur will be required.

Peculiarly sensitive in this respect are the thin-skinned sorts, such as the Delaware and others; and even the harder kinds, such as the Virginia Seedling, Diana and the like, must be managed with the greatest care. Besides, the proportion of the grapes upon a vine treated properly upon an espalier, is, generally speaking, so well regulated, that no after assistance in the way of a removal of foliage is needed.

The Time of Maturity.—The special attention from this on to vintage, both for vine and fruit, I shall reserve more in detail for the chapter in which I shall treat of the diseases and enemies

of the vine and its fruit, and pass over at once to the time of perfect maturity, that is to the time of vintage.

It is self-evident, that only an entirely ripe grape will produce a wine possessing all the qualities belonging to it. Besides, there might be but few sorts which would call for this indispensable necessity in our latitude, as I have been most positively convinced by cultivating here some of the Asiatic sorts, which usually attain their perfect ripeness about the middle of September.

But, on the other hand, the question, "When this very perfect maturity occurs, and what are the means to discern this proper time for harvesting," certainly demands a more definite answer.

I have never yet heard or read of any estimate putting the subject beyond all controversy, the reason of which may be found in the difference in sorts, or in the different nature of climate and soil. And yet a mistake may produce very serious consequences, and considerably reduce the quality of the wine.

F. Jullien, one of the most celebrated authors on the French culture of the grape, says:

"The best time to gather the grape is when the grapes are perfectly ripe. Which time may be learnt by the berries commencing to wither and having attained their highest color, the skin becoming thin, and the stones loosening from the flesh, and the ripest of them already begin to rot. At times it is even advisable to let them over-ripen, nay, to let them rot somewhat."

Count Chaptal, another authority on French Grape culture, says, on this subject, among other things:

"All the world is unanimous in this, that the most appropriate time to gather the grape, generally speaking, is at its maturity, which may be pretty certainly ascertained from the following:

1. The stalk of the grape, hitherto green, now becomes brown. In the champagne country, this change is expressed by saying that the stalk woodens. In Bergundy the stalk in this status is said to be tanned.

2. The bunch assumes a pendant form.

3. The berry has ceased to be hard, the skin thin and transparent, as Oliviers de Serres correctly observes.

4. The bunch as well as the berries are easily and without resistance separated.

5. The juice of the grape is strong, of a pleasant taste, sweet, thick and sticky.

6. The stones of the berries are free, however from any sticky substance, as Oliviers de Serres also observes."

It is to be regretted that all the signs, in order to ascertain the perfect maturity of the grape, seem to be useless in their application to our Catawba, so much cultivated in the United States, as well as many other of our wine grapes, so that it is exclusively left to the observation of the vine culturist exactly to discern the moment in order to accelerate the harvest, as its berries, or rather their remainder, left undisturbed by previous diseases, have finally reached this status, and are frequently attacked but 24 hours later by the bitter rot, which I shall take occasion to describe in detail when discussing the diseases of the vine.—This rot then spreads with incredible rapidity, endangering the entire harvest. Even at this important status of the vine (the perfectness of which is to indemnify for all sacrifice both of time and money), so many points—the sort, the climate, and even the nature of the soil—are to be held in view, that the marks or signs indicating this perfect maturity, which are to be of universal application, can scarcely be noticed. It is alone the magnificent Virginia seedling—which I deem the finest among all the wine grapes known to me, which our grape culture has thus far afforded; its culture too offering every guarantee to the grower, as well as extending the hope of recognition and reputation here and abroad—that, in this respect, gives us a certainty beyond all possible wish and desire. No delay of the harvest—though it should extend to the end of October—hazards the precious grape, and any grower of it may quietly await any, even the last symptoms of perfect maturity, and yet need not fear any diminution of the yield. The stalk now becomes wooden. The bloom of the berry, formerly dark, now assumes a light blue color, almost that of the German prune. The berry now commences to shrink, and if we wait until all these marks appear, which, as already stated may take place with all possible certainty, the grape will render a sweet, thick saccharine must, which properly treated during its fermentation will yield a claret, uniting all the qualities in itself, which leave it not behind the superior sorts of old Europe, and will secure to itself abroad a recognition of our American wines, not yet securely established.

The Herbemont, from a southern country, also yields a very excellent claret, although inferior to the one named, but requires at the approach of maturity far more attention than the

other. The maturity of the tender, thin-skinned berry upon the same bunch is subject to far greater danger, so that not unfrequently the one part is visited by wasps, while the other is green having sour berries. The Rulander, which for a white wine has, according to my opinion, not yet found a rival in this country, also requires great attention at the time of vintage.

Having gathered the grapes, I generally select all unsound berries, and having pressed the so-assorted grapes, I receive a wine as excellent as the sort can yield. This unequal maturing of the berries on one and the same bunch, must ever be regarded as rendering the production of a good wine most difficult, and it is only because these sorts possess other superior advantages that they could be recommended. Delay the harvest as late as possible even though it be not without loss, as it is the safest way to expect a good product, and will abundantly indemnify all your losses.

ABOUT STRAWBERRIES.

Many of our friends are misled by the success of strawberries in certain locations. For this should always be borne in mind, that the different kinds of strawberries vary much in different parts of the country. The Hovey's Seedling is the berry in Boston and vicinity. The Triomphe de Gand is the most successful in the vicinity of Pittsburgh, Pa. The Wilson's Albany succeeds well but one year, according to the greatest fruit grower of that section. It will do well for more years in other places. It is probably the best berry, take all locations together. Its tartness is the main, if not the only, objection, and that is not an objection with many, and probably should not be. It is the acid in fruit that makes it valuable, that makes it pre-eminently a summer fruit. When the Wilson's Albany has sufficient sun, it is not too tart, it is then perfect. Its flavor is excellent, its acid is modified by the sugar. But it is a bad notion to think a strawberry, or indeed any berry, will do well without manure. This is as great a mistake as to suppose because a berry does not do well in one locality, it is worthless. The ground must be rich, or the berry will soon run out. Rich ground then is the first necessity. The second is water at the time of bearing. A berry grows visibly smaller in a day if the ground is getting dry. It expands in the same time, if water is added.—But how much water? That is a nice question. Not difficult of solution. But people so little understand the true theory of watering. Always water thoroughly rather than often. Slight watering makes a crust in dry weather. Thorough watering moistens the ground, and the evaporation keeps the top from crusting, so that the ground for days in the hottest weather is dark with moisture, if there is not a preponderance of sand. We have watered our strawberries during the drouth, when they began to fail—watered them thoroughly to last nearly a week—and in the morning the effect was seen, the water having been applied the evening before. Too much water can hardly be applied during the fruiting season.

Cultivate strawberries as you would corn, by cutting out weeds and runners, and keeping the soil mellow, having the rows three feet apart one way by about two feet the other way. Then if the ground is rich and well in the sun—the darker the soil, the better—there can be no difficulty in raising a crop—a crop of Wilson's Albany in almost any part of the country.

Before the bearing time, straw should be strewn between the rows till up to the hills. This has a two-fold use: it keeps your berries clean; and it prevents the heat, which is then strong, from striking the ground, and thus it lessens the labor of watering.

In selecting varieties for planting, the best way is to have early and late kinds, so as to extend the season as much as possible, as few berries or fruit are healthier or more grateful than the strawberry—the blackberry alone surpasses it in this respect. As to the different kinds, only those can be recommended that have proved to be a success in the locality, though any and all may be and should be tested. Use the strawberries. Do not fail to put out a patch, if it is no more than 100 plants.

PEACH CULTURE.

It will not do to try to raise peaches unless the frost is mild. The thing has been tried time out of mind. There must not be too much frost in winter, that is, too severe. This will freeze the trees to death. In the spring the the frost must hold on late. This will prevent the blossoms from putting out too early. Besides, the peach loves a dry, sandy soil. In view of all this, it will be seen that it is difficult to select a proper place for peaches. The shores of large lakes will sometimes furnish these places. Lake Michigan is one of them; and St. Joseph and Grand Haven are instances of the most successful raising of peaches probably in the world. Clean culture is the rule here, and the soil kept thoroughly mellow. Though sandy, it is kept well-drained, drawing off considerable quantities of water. F.G.

FRUIT QUESTIONS.

Ed. Valley Farmer: I enclose herewith a Fruit Circular, which I have prepared for the purpose of collecting facts in regard to the best varieties of fruits that have been tried in Illinois. I am now sending it into the counties of Illinois, to all persons whose names I can procure, engaged in successful fruit culture. I find it difficult, however, to get the address of fit persons in each county, and would solicit through your columns the address of any fruit growers in our State who may be willing to aid in the matter. It is especially desirable to procure names from the south-eastern and central counties, from which I have been able to get but little information. A careful collation and digest of the answers received will be made, and the results published. Very Truly Yours,

W. C. Flagg, *Cor. Sec. Ill. State Hort. Soc.*

Alton, Ill, July 20, 1863.

CIRCULAR.

Sir: Desirous of collecting and collating the results of the experience, thus far, of fruit growers in this State, I would respectfully call your attention to the subjoined queries, hoping that you will, at your earliest convenience, fill so many of the blanks as your experience or observation in your locality may enable you to do, and return the lists to the following address.

W. C. Flagg, *Cor. Sec. Ill. State Hort. Soc.*

Alton, Madison Co., Ill., July 1, 1863.

Apples.—The best 10 varieties, in the order of their ripening, and the number of each you would plant in an orchard of 1,000 trees for profit; 100 trees for taste.

Pears.—The best 10 varieties, standard (s) or dwarf (d), in the order of their ripening, and the number of each you would plant in an orchard of 1,000 trees for profit; 100 trees for taste.

Peaches.—The best 10 varieties in the order of their ripening, and the number of each you would plant in an orchard of 1,000 trees for profit; 100 trees for taste.

Cherries.—The best 5 varieties, in the order of their ripening, and the number of each you would plant in an orchard of 1,000 trees for profit; 100 trees for taste.

Plums.—The best 5 varieties, in the order of their ripening, and the number of each you would plant in an orchard of 500 trees for profit; 50 trees for taste.

Apricots.—The best 3 varieties, in the order of their ripening, and the number of each you would plant in an orchard of 100 trees for profit; 10 trees for taste.

Nectarines.—The best 3 varieties in the order of their ripening, and the number of each you would plant in an orchard of 100 trees for profit; 10 trees for taste.

Quinces.—The best variety tested.

Grapes.—Best 5 varieties in order of their ripening, and the number of each you would plant in a vineyard. For wine, 1,000 vines for profit; 100 vines for taste. For table use, 1,000 vines for profit; 100 vines for taste.

Currants.—Best 5 varieties, in order of their ripening, and the number of each you would plant among 1,000 bushes for profit; 100 bushes for taste.

Gooseberries.—Best 5 varieties, in the order of their ripening, and the number of each you would plant among 1,000 bushes for profit; 100 bushes for taste.

Raspberries.—Best 5 varieties, in the order of their ripening, and the number of each you would plant among 1,000 bushes for profit; 100 bushes for taste.

Blackberries.—Best varieties tested.

Strawberries.—Best 5 varieties, in order of ripening, and number of each you would plant among 10,000 plants for profit; 1,000 for taste.

GENERAL OBSERVATIONS TO BE ANSWERED.

1. Your location, section, township, range and county.
2. Character of surface soil.
3. Character of sub-soil.
4. Native plants and trees of the locality.
5. Aspect of orchard, &c.
6. Elevation of orchard, &c.
7. Whether protected, and in which direction, by woods, hills, &c.
8. Whether the temperature is affected by proximity of water.
9. When the orchard, &c., was planted.
10. Method of propagation.
11. " " planting.
12. " " cultivation.
13. " " pruning.
14. " " picking.
15. " " marketing.

CIDER FOR WINTER.

Cold is the thing to keep cider. This the winter favors. All that is necessary is to direct the cold properly. This may be done in the following way: Make your cider for winter use late; say, in December, or the latter part of November, but always taking advantage of a cold snap, so that the cider in the barrel may freeze at once where it comes in contact with it, say an inch or two in thickness, which also improves the cider, as only the water in it freezes.

Now, you have got your cider incased in ice: that will keep it. All that is necessary now, is to keep it in that condition. This would be easy to do if the temperature remained the same—just at the point of holding it, neither thawing nor freezing.

Place your cask in an out-building or room where there is no fire. Bury the lower half in saw-dust, and let it stand there during the winter, keeping, however, watch of the very cold weather, in which case, cover the barrel with carpets, old blankets, or whatever will afford protection.

In this way a neighbor of mine keeps his cider during the winter, and in spring has better cider (what is left) than in the fall. In such case, the cider is pure and improved. No drugs hurt it. The frost puts it to a stand-still. Saw-dust is not always used; blankets may envelope the whole barrel. A cellar is too warm to keep cider, unless a very cold one.

We have said the cider should be frozen at once, as soon as made. Part may be drawn then and set in a warmer place till sufficiently fermented, and used as wanted. When made early, or when the weather is warm, there may not be frost enough in time to fasten it before fermentation has advanced too far. It is always better to have fresh cider than that too far advanced, as it cannot be brought back without injury to its body.

In this way fresh, as well as the various stages of fermented cider, may at all times be on hand. A little trouble, and it is done. Avoid drugs: you will never get pure cider by killing it. F.G.

THINNING FRUIT.

How little this is done! and yet it is one of the most important things. It looks cruel to put your knife to a fine limb. So it does to remove fruit. But this must be done, if the tree is to be benefitted; for it is not the fruit alone that is benefitted. A third or a quarter less fruit will that much improve your fruit, not only in size, but in quality.

A tree may bear too much in a year. The fruit may occupy all the sap and neglect the wood. The consequence will be, a lack of fruit spurs the next year. Of course there will be no fruit, or if there is any, it will be stunted, and lack the flavor and perfection of the year before.

Avoid, therefore, great crops. Get a *good* crop, your tree will bear that. Be not afraid to clip off your fruit. Leave a fair crop; never more. Size and flavor are of great account.

It is often seen that dwarf pear trees die; this is generally in consequence of excess of bearing. The wood of the tree is neglected, and the fruit gets all the benefit. The principle is, the equilibrium is destroyed: the health of the tree is affected. There must be vigorous wood: a healthy flow of sap.

All that is necessary to secure this, is to cut down your fruit, and the strength will not all be directed to the fruit, but distributed equally. This will give you a permanent tree, and permanent bearing.

This principle holds good with respect to grapes, especially. Too many clusters destroy your crop, or injure it seriously. We must *not* be afraid to clip off. The fall will tell you the benefit; and there is no mistake about it. Once tested, and no more advice will be needed. Thin your fruit, and save your trees, as well as improve the fruit.

WATERING TREES.

One of our exchanges holds that it will not benefit a tree much to water it. We were surprised to see this statement in a respectable paper. In other words, rain is of but little benefit, in a drouth, to trees (according to this writer), when it is known how fruit shrinks and the tree becomes stunted, if the season is a dry one. There is of course a difference in the effect which the different soils have upon vegetation. A sandy soil will seriously hurt anything set in it to grow in a severe drouth. Thorough irrigation will entirely remedy the evil. We know sandy soils in various parts of the country, that grow good crops in a moist season, that uniformly lack to pay expense of cultivation, and often expense of harvesting, in a drouth. We are familiar with thousands of acres of such land, having such results.

A rich loam is a different thing. This has moisture, and retains it. The fertilizers, themselves, in a measure, have the property of moisture within them; but they have, more than all, the property of retaining it. Hence, the soil kept thoroughly mellow, as deep down as may be, and covered several inches deep with straw, is sufficient for a good growth in a drouth. But, even then, water will aid, especially in young trees. Our old trees, whose roots extend half a dozen feet into a gravelly loam, are little affected by drouth, unless the drouth is very severe.

It is said the water will soon disappear, and thus have but a short-lived effect. Then apply often, and the effect will be commensurate. Too many of our advocates of the no-watering system, are, we fear, the advocates of ease: they do not like the labor attendant upon irrigation. A man might as well say rain is of no account in a drouth—and yet we are all wishing for rain. Rain, rain! when will it rain? Of course, the water must not be kept standing around the roots. In a harsh, stubborn soil, trees will not do well. Nothing will do well in such a soil. Dry weather will crack it, and make hard work of such ground. Water will prevent the cracking, and keep the

ground less hard. And is this of no advantage?

Where the top soil is kept mellow and mulched, less water is needed. That is the difference. A soil disposed to crack and dry hard, will be greatly benefitted by mulching: first, with mellow soil, then straw. The whiter the straw, the better, in a hot time, as the straw reflects the heat, and thus keeps, comparatively, the ground cool, a thing of some importance; of great importance with tender cherry trees transplanted. The heat, if it strikes their roots will kill them. This is the one great cause of so many young cherry trees dying, and the owner not being able to account for it. A mulch of white straw, several inches thick, will generally remedy this. Hence, mulching is highly recommended; especially the straw mulch. The thing to the uninitiated looks silly: but it is not silly. The experience of the wisest and best men confirm it. Examples in all parts of the country bear their testimony,

Mulching is watering in a measure, as it *retains* water, hence, so much less need be applied. But water over the mulch. The straw retains moisture some time, and has this advantage, that it breaks the fall of the drops, thus preventing packing or hardening the ground.

Withhold not water from your trees nor vegetation, in a drouth. Be a rain to it. Assist nature by art. That is the great secret of improvement. A little manure dissolved in the water, or added to it, or put under the mulch, is a great advantage. F.G.

New Use for Apple Juice.

It appears from the following statement, which we find in several of the English journals, that the people of that country are threatened with a cider famine, not from the failure of the apples, although a partial crop, but because they are likely to be applied to a more profitable purpose, so far as the growers are concerned, than in making a household beverage.

"It seems that the Manchester Calico dyers and printers have discovered that apple juices supply a desideratum long wanted in making fast colors for their printed cottons, and numbers of them have been into Devonshire and the lower parts of Somersetshire buying up all the apples they can get, and giving such a price for them as in the dearest years hitherto known has not been offered. We know of one farmer in Devonshire who has a large orchard, for the produce of which he never before received more than £250, and yet he has sold it this year to a Manchester man for £360. There can be no doubt that the discovery will create quite a revolution in the apple trade; and we may add that it will give an impetus to the cultivation of this hardy fruit."

Strange things happen in these days, and in a few years the manufacturers of England may be as anxious to obtain American apples as they now are to get our cotton.—[*Ex.*

TREE MANAGEMENT.

The *Country Gent.* is publishing a series of articles on this subject, which are interesting, and in the main, valuable. The writer holds that an orchard should be cultivated, and no grain or grass grown in it; that the trees will do better, grow more thrifty, and give more and better fruit—all of which will not be denied here. But how much more profitable will such a crop be than if grass, or grain, or hoed crops are permitted to grow in it, when the soil is rich and deep? We think the difference is not so great as is generally held. When the crop of grass, or whatever is raised in the orchard, is reckoned and added to the fruit, the balance will be in favor of cultivating the soil. We usually raise two good crops of hay from our orchard, in a year, and the best and heaviest crop of apples in the neighborhood. But we take better care of our trees than our neighbors. If you wish to get the greatest income, put your orchard to grass, or grain, or hoed crops. If you wish to raise your fruit to show, keep your ground in fallow, for trees, in one sense, are a crop, and will do best by being cultivated clean. But the most income is in reaping your ground as well as your trees. F. G.

Transplanting Trees.—If your young trees are much withered, bury them in moist earth a few days, or plant and keep moist constantly for several days. Straw wound around the tree and kept wet, will do this best. We have mentioned this before. Of course, the roots must have moisture, but no standing water. The ground must be porous enough to drain off the surplus moisture. But the whole, tree, including root, bole and branch, must be kept wet for several days; and then less so, merely moist.

A New Strawberry.—Russel's Prolific is a new seedling, recommended above all other berries at the East. It is said by the judges to be the best bearer, measuring from six to seven inches in circumference, and from its size is sometimes called the potato-berry. Its flavor is said (by the members of the Fruit Growers' Meeting of Western New York) to be decidedly ahead of the Wilson Seedling. It is also early.

HASTENING FRUIT.

When will people learn to ripen their fruit—to hasten and increase the quantity? It is the easiest thing in the world to do.

Your tomatoes should be on rich ground, to hasten their growth in the start, for this is an important point; though on poor ground you are apt to get a week or two earlier fruit, which is the case if the weather is favorable. But too much suffering on poor ground will not do. If your ground is rich, at least in the bed where the fruit is out to give it a start, there will be enormous growth, as the tomato is a strong grower, growing well on ordinary soil. When it has a goodly number of blossoms, and the stems are getting pretty well advanced, cut off the ends. Keep doing so with the new shoots, and now and then a leaf-branch. This will throw the rush of the sap into the fruit, the only place where it can go. The thing must be attended to every few days. We have a row of tomato hills, a few of which are treated in this way, and some left to nature. People who see it are satisfied, and ask no more. Those cut back, are low down, hanging full of large, fine tomatoes; the rest just begin to show the fruit.

It is precisely so with the grape; it must be cut back—pruned.

When a flower has dropped its petals, cut off the head containing the seed, and the strength required for the maturity of the seed—which is considerable—will go to the formation of new and improved flowers, besides increasing the bush, adding gloss and freshness to its leaves.

The man who wishes to make a thorn fence, clips his hedge. This throws out a fresh strength below, and he will soon have a fence.

Our orchards, of all kinds, give us better fruit by pruning the trees. By pruning when in full foliage, this effect seems to be greater—at least in many cases—probably on the principle that decay is necessary to life; the old stock must die to give birth to the new, as in the case of seeds, &c. We have seen—have now in our orchard—limbs which are partly decayed, the bark and the vitality suffering—which are the most prolific. It has staggered us, but the fact is there. Cut back if you wish to increase your fruit.

Preserving Fruit in Cold Air.—A late number of the *Gardener's Monthly* contains a report of the experiments of Fletcher, Williams, and Van Camp, of Indianapolis, with Nice's patent method of preserving fruit in air kept by ice within a few degrees of freezing, and rendered dry by chloride of calcium. About a thousand bushels of apples were experimented upon the first winter. They kept till the following June in perfect condition. The following summer small fruits were tried. Raspberries and blackberries kept eight weeks, and then lost their flavor without decaying. Peaches, after ten weeks, showed evidences of decay. Gooseberries, currants and cherries kept much longer. Of pears, 250 bushels were tried, of such sorts as Bartlet, Seckel and Flemish Beauty, which, it is thought may keep the winter through.—Grapes, as might be expected, kept a year, but they should, of course, be well grown and thoroughly ripened.

CHAMPAGNE CIDER.

After the apples are crushed, press out the juice, put in a clean cask and leave out the bung. It will work without anything being put in; in four or five days draw off, and put into another clean cask. Do this three or four times, allowing as many days between each changing. It does not work well in cloudy weather, and so must be left longer. If it does not fine well it will not keep sweet. To assist the fining, dissolve six ounces of gelatine for each hogshead and mix; do this previous to the last change of cask.

The quality of cider depends upon the sort of apples used. Two parts sour apples and one part sweet will make good cider.

Now observe, let there be no time lost in the whole process, but allow sufficient time to do it well. It is the particles of pulp left in the cider that causes it to turn sour. To effect the proper clarifying and working, it will require four changes of cask, that is if you want first-rate cider. Do not put any water in any part of the process—have all juice.

After the last change, the cider may remain in the cask, bunged up two or three months.—You can then bottle off—lay the bottles down in a cold, dark cellar—some will burst, but then you must put up with it. It will be fit to use during the summer, when all parts of the work have been well done. The bottled cider will be equal to champagne, and will keep sweet.—Some put brandy, rum, gin, or other spirits in—it does not preserve it, but only makes it intoxicating.

If you can get pine-apples very cheap, two or three crushed up in each hogshead of juice will be a great improvement. If you keep the cider in casks, be sure that they are sound and air-tight, and very clean. Wash out with cold water, and scald out your cask—fumigate with rag of sulphur—melt the sulphur and then dip the rag in, a piece about one foot square will be sufficient for a hogshead—light the rag and then put in the hogshead—leave out the spile peg only. This will destroy all must or mildew, or any other bad taste in the cask.

Mulching Trees.—Do not neglect to use straw around your trees—not early in the season, as the sun then wants to warm the soil, which the straw prevents—but when the warm weather begins, and keep it there till the next spring, as in winter it will protect against frost. Wonderful effects are wrought in this way, which the uninitiated do not like to believe, but which the experimenters and true observers know. The trouble is but slight. The straw has not only the effect to keep the ground moist and cool—two important things in a drouth—but it prevents weeds and grass, in a measure, from growing up.

[Reported for the Valley Farmer.]

Meramec Horticultural Society.

ALLENTON, July 2, 1863.

The fifty-fifth regular monthly meeting was held in the school-house. President Beale in the chair.

The reading of minutes of former meeting was dispensed with.

One new member was admitted.

Mr. Cornwell, from the Committee on printing second Essay, reported; laid over till next meeting.

REPORT OF FAIR COMMITTEE.

Your Committee met pursuant to the resolution adopted at last meeting, for the purpose of making preliminary arrangements for our Annual Fair.

The first question that arose was the place of meeting, when it was unanimously agreed to have it at the school-house in Allenton, on account of the more convenient access to that point.

We suggest Thursday, the 17th of September, as the day of exhibition. Would like to have it earlier in the month, but cannot have any moonlight (for the accommodation of those at a distance) before that time.

We propose to make it similar in style and character to our last exhibition, which seemed to pass off well, giving general satisfaction. That is, a Free Exhibition of Fruits, Flowers, Vegetables, Grains, Needlework, Paintings, Statuary, Engravings; also, specimens of Cookery, Confectionary, &c., to which all are invited to come and bring anything they may have worthy of exhibition.

We would suggest here that members and friends, living convenient, would do well to take Ornamental Plants, Pot-Flowers and Shrubs, and every thing they can that will help to ornament the house, and add beauty and interest to the occasion.

In order to facilitate matters and accommodate exhibitors, we have appointed a committee of six members who are to act as managers in receiving, labeling and arranging the articles for exhibition. Each one to have entire control of the department in his charge, with the privilege of calling any person he may think best to assist him. We suggest the following names as being suitable persons for the places assigned, viz: Dr. A. W. McPherson, Fruits; Dr. L. D. Morse, Flowers; T. R. Allen, Vegetables; L. D. Votaw, Grains; P. M. Brown, Needlework; E. Vaughn, Paintings and Ornamentals; John Letcher, Cookery and Confectionary.

Persons exhibiting articles of any kind are requested to label each article with the name of the article and owner, and add any remarks that might be of interest, and then there will be nothing lost, and every one can know who is entitled to the credit for any article without asking questions. The members and friends living convenient to Allenton, are expected to bring large baskets filled with suitable refreshments for themselves and friends; in this way we can supply all our visitors and friends from a distance.

Your Committee urgently recommends that each for himself determines to make this exhibition all it should be—better in every respect than we have ever had before—and the manager of each department should feel that he is individually responsible for the success of his charge, and exert himself accordingly from this time forward.

All questions that may arise on the day of exhibition are to be decided by the President.

A. W. McPHERSON, Ch.

Report adopted.

The Fruit Committee reports but a small show of fruit. Wm. Muir, Dr. McPherson and Dr. Beale exhibit Red June, ripe; Dr. Beale's the finest. Wm. Harris has the American Yellow Cap and American Red raspberries—the last very fine. Wm. Muir has five varieties of raspberry, American Red, Black and Yellow, Marvel of the Four Seasons and Ohio Everbearing—the last-named he thinks much the best of the five. Also, two varieties of foreign gooseberry, Whitesmith and Wellington's Glory, very large, fine and healthy, nearly ripe, have not mildewed in six years. James Shields has very good specimens of Buttner's Yellow Cherry.

A. W. McPHERSON, Ch.

The Flower Committee reports bouquets by Miss Margaret Muir, No. 1; and Miss Mary Harris No. 2; also, a very fine yellow Hollyhock from Miss Mamie McPherson.

W. MUIR, Ch.

Very fine samples of White Sprout potato were presented by Dr. McPherson.

Dr. McPherson said it came here from Ohio; has been tried about 4 years; is much esteemed; early, large, good. We have been eating them since the 20th of May. The first came from those potatoes that came up in the patch of the year before which had been plowed up very early in the spring; they stood the winter well in the ground.

President Beale admired them much, they were the best early potatoes he ever had.

E. Vaughn planted them late in June and they made a fine crop of good late potatoes; they kept well in the ground all winter.

An interesting conversation was had upon the gooseberry, cherry and grape.

Dr. McPherson finds his grapes healthy, except one which is much in the shade.

Jas. Shields finds the Catawba has some rot.

Mr. Cornwell referred to a fine grape he had—the Segar Box—3 years planted; had 50 to 60 bunches; an excellent grower, and very healthy.

President Beale found some rot on the Concord; none on the Isabella or Catawba, all in the same ground and row, and all treated alike.

Mr. Vaughn found some specks of rot on the Catawba; the Diana and Concord very full.

Mr. Helfenstein referred to a vine he had from one he originally planted in the city; paid a high price for it to an itinerant grape-vine monger; a strong grower, bore large berries, but small bunches, which generally dried on the vine, and the aroma so strong that one berry would scent the room. It was supposed to be the common Muscadine. Mr. H. instanced some neighbors of his that had been thus largely victimized; purchasing large quantities of vines with fine names at a high price, and the best of them were Isabella or Clinton.

Secretary thought we would value the Clinton more as we know it better, it seemed to improve with our soil and climate.

The President stated that the Society had been invited by the friends at Kirkwood to meet there, and would therefore announce that the next meeting be held at Kirkwood, on the first Thursday of August, at 10 A. M.

WM. MUIR, Sec.

RASPBERRIES.—Old fruit growers say, ground well manured, dry and mellow, will prevent the canes from degenerating and taking the jaundice, which so often attacks the berry where too many canes are crowded together. This yellow sickness of the shrub is a common complaint. Sometimes the berry will not assume this form, but change into a hybrid, a half-black, half-red berry, not ungrateful to some palates. But it is not what is wanted or intended. Thorough cultivation will remedy all these evils.

Illinois State Horticultural Fair,

To be held at

ROCKFORD, SEPT. 8TH, 9TH, 10TH & 11TH, 1863.

Send for a Premium List, to

C. N. ANDREWS, ROCKFORD,

Or, W. C. FLAGG, ALTON.

"NICE GIRLS."

From an uncredited article in the *Philadelphia Bulletin*, we condense a few paragraphs that will find a heartier response from more than many a dashing belle would imagine.

There is nothing half so sweet in life, half so beautiful, or delightful, or loveable as a nice girl. Not a pretty, or a dashing, or an elegant girl, but a *nice* girl. One of those lovely, lively, good tempered, good hearted, sweet faced, amiable, neat, natty, domestic creatures met with in the sphere of home, diffusing around the domestic hearth the influence of her goodness, like the essence of sweet flowers.

"A nice girl is not the languishing beauty, dawdling on a sofa, and discussing the last novel or opera; nor the giraffe-like creature sweeping majestically through a drawing room. The nice girl may not even dance or play well; and knows nothing about 'using her eyes,' or coquetting with a fan. She never languishes; she's too active. She's not given to sensation novels; she's too busy. At the opera she is not in front showing her bare shoulders, but sits quiet and unobtrusive—at the back of the box most likely. In fact, it is not often in such scenes that we discover her. Home is her place.

"Who rises betimes and superintends the morning meals? Who makes the toast and the tea, and buttons the boys' shirts, and waters the flowers, and feeds the chickens, and brightens up the parlor and the sitting room? Is it the languisher, the giraffe, or the *elegante*? Not a bit of it; it's the nice girl.

"Her unaided toilet is made in the shortest possible time, yet how charmingly it is done, and how elegant her neat dress and plain collar. What hearty kisses she distributes among the family! no presenting of cheek or brow, like the fine girl, but an audible smack, which says plainly, I love you ever so much. If I ever coveted anything, it was one of the nice girl's kisses.

"Breakfast over, down into the kitchen to see about dinner; and all day long she is up and down, always doing, and always cheerful and light-hearted. She never ceases to be active and useful until the day is gone, when she will polka with the boys, and sing old songs, and play old tunes to her father, for hours together. She is a perfect treasure, is the nice girl. When illness comes, it is she that attends with unwearying patience the sick chamber. There is no risk, no fatigue that she will not undergo; no sacrifice that she will not make. She is all love, all devotion. I have often thought that it would be happiness to be ill, to be watched by such loving eyes and tended by such fair hands.

"One of the most strongly marked characteristics of a nice girl, is tidiness and simplicity of dress. She is invariably associated in my mind with a high dress, a plain collar, and the neatest of neck ribbons, bound with the most modest little brooch in the world. I never knew a nice girl yet who displayed a profusion of rings and bracelets, or who wore low dresses or a splendid bonnet.

"I say again, there is nothing in the world half so beautiful, half so intrinsically good, as a nice girl. She is the sweetest flower in the path of life. There are others far more stately, far more gorgeous; but these we merely admire as we go by. It is where the daisy grows that we lie down to rest."

LIFE'S ANSWER.

BY THE DEAN OF CANTERBURY.

I know not if the dark or bright
Shall be my lot:
If that wherein my hopes delight
Be best, or not.

It may be mine to drag for years
Toil's heavy chain:
Or day and night my meat be tears
On bed of pain.

Dear faces may surround my hearth
With smiles and glee:
Or I may dwell alone, and mirth
Be strange to me.

My bark is wafted to the strand
By breath Divine:
And on the helm there rests a hand
Other than mine.

One who has known in storms to sail,
I have on board:
Above the raving of the gale,
I hear my Lord.

He holds me when the billows smite—
I shall not fall.
If sharp, 'tis short; if long, 'tis light:
He tempers all.

Safe to the land, safe to the land—
The end is this:
And then with Him go hand in hand,
Far into bliss.

[—McMillan's Magazine.

[Written for the Valley Farmer.]

DEATH.

BY DR. J. B. COLEGROVE.

The almost universal idea concerning death is that of extreme suffering, which is so terrible as to defy any attempt at description; and so general is this belief, that in many languages the word "agony" is made use of to mean death or dissolution.

I apprehend that this is an error. Not unfrequently, nay, commonly, the sufferings of the body, by a considerable distance, precede dissolution; and the very act and event of death, *Articulo mortis*, occurs during a condition of insensibility. I rather incline to the opinion that most of the suffering is endured by the victim whilst the struggle is going on between nature and disease.

The very symptoms that appal the bystander—the upturned eye—the hurried and labored breathing: these are the unmistakable evidences that the brain has become insensible to impressions, and is no longer cognizant of suffering. If this were not so—if the individual were conscious of agony, then the eye would give obedience to commands of the brain—the control of the great nervous centre over the muscles would convey the evidence of it. But with the loss of consciousness, comes the loss of the will—the loss of power of motion—of control of muscles, and the eyeball turns upward under the lid involuntarily.

All muscular action, then, becomes involuntary and irregular or convulsive, and if they appear to be the evidences of agony, they are such only in appearance.

Sometimes, indeed, life goes out amid the intensest suffering, when the cause is sudden, and the system has not been weakened by long wasting; but when nature wrestles with her enemy for the mastery—then, there is corporeal suffering. This is, however, rather the exception, and as we all desire an easy death, happily the final, closing scene, in most diseases, is of this character.

Thus, the dark and dismal stream, whose waves we approached with unspeakable dread, bears our unwilling bodies without a struggle or realized pang.

☞ A tax paper was once returned filled up as follows:

"Not any servants do I keep,
Or dogs to guard me while I sleep;
No carriage or armorial bearing,
Not any one hair powder wearing;
No horse, for which to purchase hay,
Therefore, no duty do I pay."

TALKING POETRY.

It is true that "whatever pleases is poetry;" then we have numerous instances of the "art divine;" then Coleridge must have been a poet in this sense as well as otherwise; then many men are poets who never made any pretentions. Certain it is, that some conversational poems are interesting. We have already remarked about this characteristic in Amelia Welby's muse. Browning exhibits the same. There is much of a similar nature in Leigh Hunt. We subjoin a specimen of this kind of poetry. It is by a very unassuming person—the unfortunate sister of Charles Lamb, whose history (brother and sister) is as full of poetry as that of Burns or Byron, and much more touching. The poetry of such people can only be appreciated by an acquaintance with the author.—It is this that makes Charles Lamb so interesting; that makes Elia a name forever. Hence the poem of Mary Lamb has a double interest. But we will no longer withhold it from the reader.

CHOOSING A NAME.

I have got a new-born sister;
I was nigh the first that kissed her.
When the nursing woman brought her
To Papa, his infant daughter,
How Papa's dear eyes did glisten!
She will shortly be to christen,
And Papa has made the offer
I shall have the naming of her.

Now, I wonder what would please her—
Charlotte, Julia, or Louisa?
And Mary—they're too common;
Joan's too formal for a woman;
Jane's a prettier name beside,
But we had a Jane that died.
They would say, if t'was Rebecca,
That she was a little Quaker.
Edith's pretty, but that looks
Better in old English books;
Ellen's left off long ago;
Blanche is out of fashion now.
None that I have named as yet
Are so good as Margaret.
Emily is neat and fine.
What do you think of Caroline?
How I'm puzzled and perplexed
What to choose or think of next!
I am in a little fever
Lest the name that I should give her
Should disgrace her or defame her:
I will leave papa to name her.

Multiply Examples.—We are all imitators, following after some pattern. Now and then we find an original thought. The truth is, the business of the world is done by example. A farmer treating his field in a new way, and meeting with success, will be thronged with inquirers. Soon new fields like his will spring up. So with a new farming implement. How soon a single successful implement will stock a whole neighborhood. Multiply examples.

[Written for the Valley Farmer.]

SUMMER RAIN.

Is that the rain—
Large drops upon the roof,
That hasn't heard a "hoof"
For half the summer?
It is the old hummer
Of former days, walking across the plain,
And tapping—rushing now—upon the roof.

Windows are full of faces,
Looking at the races
Of the streams
That fast are making seams
In the rich farmers' fields,
Cutting short their yields;
Yet still
Their faces gleam (the farmers),
At every tumbling rill,
Too happy for the rain
So long, so long delayne.

There goes a twit of laughter,
Another coming after,
At the long thread the gutter spins,
O'er-shooting wide its mark—
So sudden and so copious a summer rain begins.

F. G.

EASY TO DO RIGHT.—Any man can tell a truth easier than a lie; can do a good deed easier than a bad one; can be honest easier than dishonest. The natural inclination is to do right, and it is easier to do it than wrong.—It is not an irksome task, as some maintain; a sacrifice of all pleasure; a hard, doleful crucifixion of the natural man, to do right; far from it. Right lies in the straight-forward path of life; wrong is in the by-ways and behind the hedges. To do right, is both easy and pleasant. Rectitude smiles upon her followers, and pays them well for their service. There is glory in the right, and everybody knows it. To live honorably, is to get the world's esteem. Men know this. Why, then, do they not so live? Ah, that old theory, that it is hard to do right, has frightened them from an attempt to live by the principles of honor and right. *

SPRING VOICES.

"Caw, caw!" says the crow,
"Spring has come again, I know,
For as sure as I am born,
There's a farmer planting corn.
I shall breakfast there, I trow
Ere his corn begins to grow."

"Quack, Quack!" says the duck,
"Was there ever such good luck?
Spring has cleared this pond of ice,
By her magic, in a trice,
Just as Goodman Drake and I
Its surface wished to try."

SELECTED.

The New York belles in "high circles" have adopted a fashion, when in full dress, of wearing powdered gold on their hair. One young woman is said to have recently sported one hundred and fifty dollars' worth of the auriferous deposit on her head.

Draughts of the Seine.

THE PROPERTIES OF HEAT.—"First class in philosophy, come up. Ichabod, what are the properties of heat?" "The properties of heat is to bake bread, bile water, cook eggs, and—" "Stop. Next." "The properties of heat is to warm your toes when they get cold by holding them to the fire, and so forth." Next. You, Solon." "It expands bodies while cold concontracts them." "Very good, Solon. Can you give me an example?" "Yes, sir; in summer, when it is hot, the days are long; and in winter, when it is cold, the days get to be very short." "Go to the head, Solon; boys, take your seats," and the learned pedagogue was lost in wonder that so familiar an illustration had escaped his philosophical mind.

Madame R., who is still a coquette in her advanced maturity, came to an evening party after eleven o'clock. "How late you are, my charmer," said the mistress of the house to her, reprovingly. "I am quite ashamed," answered Madame R., "but my maid is so very slow; she takes more than an hour and a half to do my hair." "Fortunately," observed one of her friends, "you are not obliged to stay at home while she is doing it."

A fellow was kicked out of an editorial room, the other day, for impudently stating that "he had seen, in Germany, a fiddle so large that it required two horses to draw the bow across the stringa, which would continue to sound six weeks!" Men have been "invited out" for a less offence than that, though the "long bow" is often drawn in the place aforesaid.

Some unsophisticated paragraphist heads an account of the marriage of a Virginian damsel with a Yankee artillery-man as "A step towards peace." "Never wider of the mark in the world," reports a spicy cotemporary.

"Dear me, how fluidly he talks," said Mrs. Partington, recently, at a temperance meeting. "I am always rejoiced when he mounts the nostrils, for his eloquence warms me in every nerve and cartridge of my body."

What is the difference between the Prince of Wales and the water of a fountain? One is heir to the throne and the other is thrown to the air.

"Mrs. Dobson, how's your husband?" "He's dying, marm, and I don't wish anybody to disturb him." A very considerate woman.

Women dislike garrulous men, because they know how it is done; but a talent for silence strikes them with awe and wonder.

When may a man be said to be literally immersed in business? When he's giving a swimming lesson.

The husband who devoured his wife with kisses, found afterwards that she disagreed with him.

Why are milkmen like Pharaoh's daughter? Because they find a little profit in the water.

What did Lot do when his wife turned to salt? Got a fresh one.

WAIT, MY LITTLE ONE.

Wait! my little one, wait!
When you get to the beautiful land;
Tarry a little my darling,
Ere you join the heavenly band.
Stand close to the shining gates of pearl,
Look out on the narrow way, [sight,
For I want the first glance of my heaven-born
On my little one to stray.

Wait, my little one, wait!
When you reach the courts above;
Look down with the light of thy beautiful eyes,
On those that you used to love.
Whisper sweet dreams in our earthly ears
When we lie down to sleep;
Paint bright pictures before our eyes
When we awaken to weep.

Wait, my little one, wait!
When you reach the celestial strand,
For thy mother may be toiling up
To the hights of the better land.
For the years that fall like molten lead
On the hearts this side of the sea,
Will pass like the light of a beautiful dream
My little baby o'er thee.

BENEFITS OF POVERTY.—There is a pleasure in poverty—a pleasure in saving, in husbanding small means. And the pleasure is lasting.—Great speculations will rack the mind, whether they are successful or not. Sudden wealth produces a shock, which gradual accumulation never feels. A small, frugal family, neat, and yet having sufficient, with fifty dollars a year laid away, is so much consolation—a constant consolation, and a moderate one—and it is moderation that saves the world from recklessness and ruin. These quiet virtues are a well-spring of pleasure. The rich man, when asked how he got rich, said, by saving. We all get—get enough, and a little to spare. It is this "little to spare" that we should save—not exactly to get rich, but at least against a rainy day. If it is not laying up treasure in Heaven, it is at least a treasure that has some consolation, and no harm in it, which great wealth seldom has.

A FISH STORY.—Our markets are occasionally stocked with white fish from Cass county.—Some twelve or fifteen years ago, a storm of wind and rain swept over a chain of lakes in that county, and, among other things, strewed in its track great numbers of small fish.—Very little was thought of it at the time, but the fish, or those which fell into the lakes, grew larger each year, until a fine crop has matured from this sowing of the wind and water. The fish were, no doubt, lifted from Lake Michigan by a water spout, carried into the clouds, driven hither and thither in their fleecy chariot, and at last emptied upon the earth. Thus the waters were planted by the tempest, and thus nature repairs herself through her own agencies.

BE QUIET.—Go to bed with a quiet mind. Go to your meals in the same way. This will promote digestion and sleep, two of the greatest requisites of life. A noisy man does little beyond making noise. It is the quiet men that do the business of the world—quiet and steady as a river, and as effectual.

Leave noise
To the boys.

THE HONEST MAN.—God's nobleman is the honest man. Angels stand by his side, and feel proud of his company. There is greatness in his soul, the greatness of principle; such greatness as makes a man godlike; greatness—beside which all the men of policy that ever played the stratagems of war, or managed the game of tyranny, or pulled the wires of promotion in senate hall or popular forum, are pigmies. An honest man, be his hands hard or soft, be his face sun-burnt or study-paled, be he street-sweep or president—is a great man, and his earthly position does not add one cubit to his greatness, nor take one from it. He is great in himself; he is beautiful, brave and strong. This is the Divine estimate of an honest man. As men grow towards the Divine, they approve this estimate.

WATERING HOUSE PLANTS, GARDENS, &c.—Add to every gallon of water, half an ounce of sulphate of ammonia. This dissolved makes a rich liquid manure; and it is clean as well as cheap. It is just the thing for your house plants. You can get the ammonia at any druggists. It brightens both flowers and leaves, and adds greatly to their growth, as ammonia is the great fertilizer of agriculture.

☞ The true dyspeptic, who is the most nervous man in the world, will believe things that a sane man would be surprised at. These things are such as generally affect himself. In his worst moments, this is a great evil. The man "is certain" that he is afflicted with diseases that will kill him, when the disease is not afflicting him at all. Luck is also against him, whether in love, money or politics.

ED. VALLEY FARMER: I have received the May and June Nos. of your Journal, and am delighted with them, but especially with your department for inquiries and answers. And now I would like to make one or two.

Can any of your readers inform me how to make Cucumber pickles without salt brine. I want to know how to make them like those found in the groceries, which are taken from the barrel fit for use.

Also, how to color wool a dark drab or lead color.

A SUBSCRIBER.

Editor's Table.

Only Seventy-Five Cents.

We will send the VALLEY FARMER from the first of May to the end of the year—eight months—together with our Premium Essay on the Culture and Manufacture of Sorghum, for only seventy-five cents.

As an inducement to our old subscribers to put forth some exertions to procure new subscribers, we will send to those who forward us one name and seventy-five cents, the Report of the Missouri State Horticultural Society, recently published. This Report is valuable to every Western fruit grower, and can be obtained so easily by this offer, that we hope to see it widely disseminated.

Illinois State Horticultural Society.

This Society convenes at the pleasant city of Rockford, about 40 miles west of Chicago we believe, on the 8th of Sept. There ought to be a very large attendance of the fruit growers of Illinois. There will be samples of all kinds of fruits of the season exhibited. There will also be discussions on various horticultural subjects. Premiums are offered as usual. We have not the premium list at hand, but understand that the enormous sum of two dollars is offered for the best three bottles of wine! Now, in St. Louis or elsewhere, the same three bottles would sell for at least three dollars. So the exhibitor makes one dollar, "over the left," by exhibiting. The wine interest in Illinois is an important one. There is a great deal of land in that State admirably adapted to the culture of the grape. All along the bluffs of the Mississippi from Nauvoo to Cairo, and all along the bluffs of the Ohio from Cairo to the Indiana line, and a vast scope of country elsewhere throughout the State, produce the grape in great perfection, and the time is not distant when hundreds of thousands of dollars' worth of wine will be exported from the State; and to stimulate the wine growers in producing and exhibiting a wine of superior quality, the officers have magnanimously offered two dollars for three bottles. What a stimulus this will be to the enterprising grape growers of this great State. We think the officers must belong to the tee-total society. Still we want every fruit grower and wine producer there. We want to see the fruit and native wine business flourish.

WHEAT DRILLS.—Now is the time farmers should be looking out for Wheat Drills. We have traveled over the country a great deal the past few years, and have been an attentive observer of the crops, and we have invariably found that the seed is much better put in, and the yield much heavier where the Drill is used. The seed is put in with greater uniformity and regularity, the ridges raised by the Drills are highly advantageous in preventing winter killing, to which our wheat is so much subject in this climate. Farmers having but a few acres to plant, will be paid in a single season for the outlay of purchasing a Drill, by the increased yield of the crop. The Drills are now made in a high state of perfection, and the seeding is much more easily done by a Drill than by hand.

VISIT FROM LOUIS L. KOCH.—We had the pleasure of receiving a call from this distinguished and scientific horticulturist a few days since. Mr. Koch is a brother of Dr. Koch, the distinguished geologist, who discovered the skeleton of the Zeuglodon, which is now in Wyman's Museum, St. Louis—one of the largest and most remarkable animals of the amphibious creation. Mr. Koch is writing for our journal a series of articles on grape culture, which are read with very great interest by our thousands of readers. He brought with him from his residence, which is Golconda, Illinois, two samples of wine; one from the Norton's Virginia grape, and the other from the Rulander, which were excellent. Mr. K. considers the Norton's Virginia the best variety for wine, and the Rulander as making a wine of superior quality.

STATE FAIR OF IOWA.—The annual Fair of this State will be held at Dubuque, Sept. 15, 16, 17, and 18. We acknowledge the receipt of a complimentary ticket, and shall endeavor to attend the exhibition.

IOWA STATE AGR. SOC., SECRETARY'S OFFICE,
Fairfield, July 27, 1863.

N. J. COLMAN—Dear Sir: In transmitting to you our complimentary ticket, I beg to assure you that our coming State Fair promises to excel all its predecessors, in all those elements which conspire to make a useful, an attractive and interesting exhibition.—From letters received from all parts of the State, I can promise with confidence that our Fair will be a just representation of the Agricultural condition of the North-West.

Should you deem our Association of sufficient importance to call the attention of your readers to the time and place of holding the Fair, I shall be under great obligations, as also for a copy of your paper in which such notice may be made.

With great respect, your ob't serv't,
J. M. SHAFFER, Sec.

WILKES' SPIRIT OF THE TIMES.—The American Gentleman's Newspaper. A Chronicle of the Turf, Field Sports, the Army, and the Stage.

This is one of our most readable exchanges. To any one fond of Rural Sports, it is an indispensable companion. It is wide-awake—not a sleepy paragraph in its sixteen quarto pages of matter. To the Stock Breeder it is invaluable. All the best trotting and running horses are noticed from time to time, and valuable articles appear on their treatment. Any one wishing to subscribe for it, can obtain it for six months by remitting Two Dollars, to Geo. Wilkes, 201 William Street, New York City.

Notes From Egypt.

We have had some very cool and wet weather for this time of the year, but it has turned warm and dry now, and it looks as though we might have a drouth.

It is the practice with the Egyptians to let their wheat stand out in the shock till threshing time, when they get together and draw it in and immediately thresh it; but it has been so wet that the wheat sprouted in the shock, and is badly damaged.

Corn looks badly in places, some farmers have plowed their corn but once since it was planted; others not at all.

Cotton is backward in many places on account of so much wet weather; some pieces, however, look well.

Tobacco has been planted by many persons largely—and in consequence they cannot cultivate it well—it looks poor.

FRUIT.—Peaches are scarce now, and will be throughout the season; they are being shipped in

small quantities from several stations on the Ill. Central R.R.

The Honest John Ripens earliest this season in Southern Illinois; the Early York next, but rots badly, and the Early Tillotson next.

Grapes will not be abundant, owing to the rot.

Dongola, Ill., July 24th, 1863. RALPH.

POST OFFICE DEPARTMENT, Appointment Office,
Sir— Washington, July 6, 1863.

The 5th sub-division of the 42d instruction, under the new Post Office law, is hereby amended by striking out the word twelve and inserting thirty-two before ounces, so that it shall read as follows:

"The weight of packages of seeds, cuttings, roots and scions, to be franked, is limited to thirty-two ounces." By order of the Postmaster General,

ALEX. W. RANDALL, 1st Asst. P.M. Gen.

DEPARTMENT OF AGRICULTURE,
Washington, July 7, 1863.

At the suggestion of the Post Office Department that the above order should be published as extensively as possible, you will confer a favor on this Department, and on the farmers of the country, by giving it a place in your paper. It will be seen that the right to send the usual weight of seeds, cuttings, &c., under the frank of this Department, has not been abridged. Very respectfully yours,

ISAAC NEWTON, Com.

HAINES' LEGAL ADVISER.—We have received the July No. of this publication. It contains the usual amount of practical legal information for Lawyers, Business Men and others. It publishes regularly from official sources, all decisions of the Commissioner of Internal Revenue, and the Courts, upon questions arising under the National Tax Law, with a vast amount of general information concerning this important law.

It is also devoted especially to information concerning the Enrollment and Draft of Militia under the recent Conscription Act of Congress.

Terms, $1 a year. Address E. M. Haines, publisher, Chicago, Ill.

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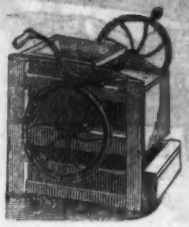

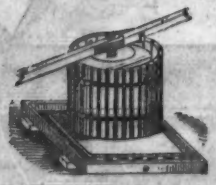

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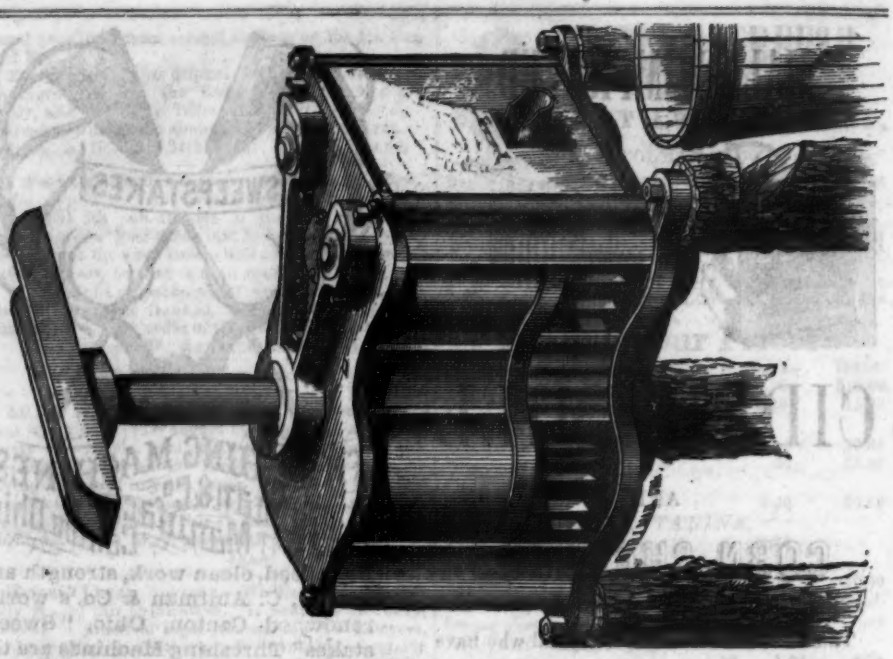

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